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ABSTRACT

A 2-day sumposium, attended by Illinois businessmen, labor leaders, educators, and government personnel, was held to: (1) define the major problems and opportunities that will challenge the State over the next 10 to 15 years, (2) clarify the State's purposes and objectives that must direct the meeting of the challenges, and (3) develop a framework of concepts and principles on which policies and decisions can be soundly based. Some of the issues discussed in the major presentations included: (1) the prediction and control of the occupational structure and training and shaping the work force to match that structure, (2) the rapidly changing job market, (3) the impact of vocational education and job training on the problems of unemployment, (4) the changing work ethic, and (5) the image and role of vocational education. Texts of the major presentations and interviews with the participants are included in this publication. (SB)

State of Illinois Advisory Council on Vocational Education

Governor's Symposium on Vocational Education

Palmer House Chicago—May 4–5, 1972

PROCEEDINGS

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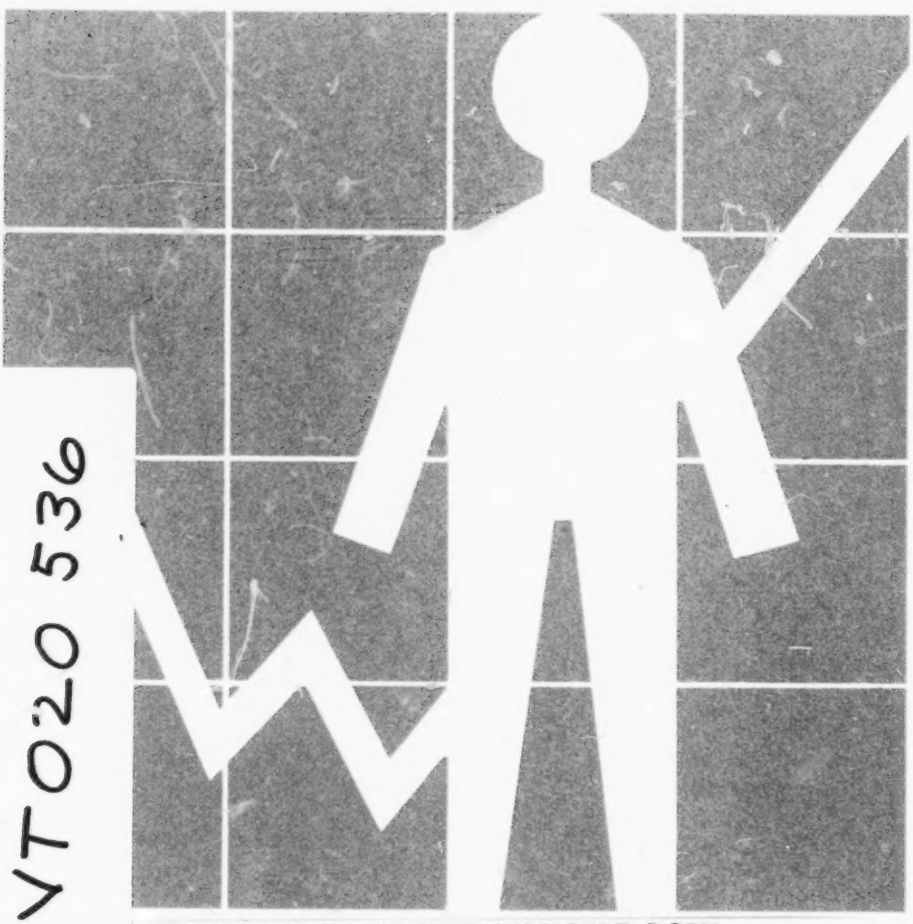
Investing in People



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PREFACE

The Governor's Symposium on Vocational Education was incepted with an invitation to recognized leaders, both within and without the state, from many walks of life and of many shades of opinion. They were invited to meet and examine the most critical problems facing vocational education in the immediate future in Illinois. This project grew out of a belief that vocational education in the State was approaching a situation requiring urgent attention of thoughtful citizens. The Symposium was called by the State of Illinois Advisory Council on Vocational Education, a broadly based entity representing both education and consumers of education from a cross section of the state. The Symposium had as its major aims:

1. To define the major problems and opportunities that will challenge the state of Illinois over the next ten to fifteen years;
2. To clarify the State's purposes and objectives that must inspire and direct the meeting of such great challenges;
3. To develop a framework of concepts and principles on which policies and decisions can be soundly based.

The Symposium, then, has been a sustaining effort to contribute to the dialogue by which we Americans live—the dialogue in which the voices of alert concerned citizens may be heard by the leadership of the State, both within and without the Government.

This has necessarily been a long labor. The reports published here are the result of more than two hundred persons thinking and working together. They are persons of experience and ability.

For the complete success which the Symposium enjoyed, special acknowledgement and thanks are hereby extended to:

Dr. David R. Derge, President, Southern Illinois University, for his expertise and his serving as Symposium Toastmaster.

Mr. Andrew H. Marcec, Division of Continuing Education, Southern Illinois University, General Coordinator and Chairman of Arrangements.

Mrs. Carole Ann Vogt, Division of Continuing Education, Secretary on Arrangements.

The Faculty and Staff of Southern Illinois University, whose generous involvement contributed in no small degree to the overall success.

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RICHARD B. OGILVIE
GOVERNOR

I am vitally concerned that Illinois Schools assume a vigorous role in developing and providing new programs of Vocational and Career Education to meet the needs and capabilities of our young people. It is critical that these programs concentrate on the opportunities available in the real world of work.

The "Governor's Symposium on Vocational Education" focused on these fundamental considerations. It was designed to find out what leading businessmen, labor leaders, educators, and government spokesmen say about "Investing In People." Key individuals from throughout the State were personally invited to participate in this conference.

The challenge outlined at the Symposium of redirecting and intensifying our commitment to Vocational and Career Education in the 70's certainly merits our full support.

I wish to thank the Advisory Council on Vocational Education for hosting this most successful conference, Dr. David Derge, President of Southern Illinois University at Carbondale for acting as toastmaster and making available valuable resources and all participants for their input and dedication.

Richard B. Ogilvie
Governor

HONORABLE RICHARD B. OGILVIE
Governor
State of Illinois
Springfield

I am pleased, indeed, that so many of you have responded to my invitation to attend this symposium on vocational education.

As the outstanding leaders in labor, business, civic, governmental and educational affairs in this state, you are on the firing line—where the real action is. It is critically important that your group, with your diverse interests and skills and varied backgrounds, contribute ideas for effective change.

Acting as my host for this symposium is the Governor's Advisory Council on Vocational Education. This group of dedicated lay persons is charged with the responsibility of advising on and evaluating vocational and technical education, programs, services, and activities. It is my sincere wish that you act tonight and tomorrow as an extension of the advisory council during this symposium.

Only recently have we begun to come to grips with the reality of scarce but misallocated educational resources and wasted human resources. In an age when a college education had been widely and uncritically accepted as a prerequisite to success and fulfillment, it has been estimated that more than two-thirds of our young people enter the labor force without adequate preparation—which could be either a college degree or some form of career-oriented education.

In the past, the educational community had formulated an incredible obstacle to developing an effective vocational system, both in the quality of programs offered and quality of students served. Instead, a mythology developed about a college education. According to this mythology, a university degree somehow becomes a magic key which guarantees entry into a world of economic well-being and endows the holder with a cloak of status which would be unattainable any other way.

The long period of economic boom nurtured the myth of college education, but the myth was shown to be false by the economic downturn and the simple laws of supply and demand. We have more history teachers than our school system can absorb, but we haven't enough nurses to care for the sick. Nuclear physicists are out of work, but we have trouble finding a competent mechanic to repair a simple ailment of the family car.

Our school systems are geared to preparing our young people to enter college, yet for the majority of high school students who entertain no college ambitions, high school graduation too often is a dead end.

Because our entire educational structure is the focal point of many public frustrations and doubts, a deep sense of community involvement is absolutely essential. Education at all levels, after a quarter-century of virtually unlimited growth and uncritical support, is being called to account by a tax-weary public and by legislators acting on its behalf.

The past misdirections of human resources have cost the taxpayers

dearly. It is estimated to have cost the taxpayer $7 billion yearly to produce 850,000 high school dropouts, $9 billion a year nationally to provide 750,000 high school students who do not go on to college with general education degrees with little skill training attached, and more than $12 billion a year for the 850,000 students who enroll in college but who drop out before graduation or do not complete an occupational program.

Our schools and universities must be subjected to the same tests of strict accountability which we have long demanded of all other public services. Painful as it is, I believe this process will provide overall benefits for our entire educational system and society.

The theme of this conference—"Investing in People"—is a timely and positive statement of our goal. Investment in people is the highest form of investment, with a high return for both the individual and society. This administration is proud of its commitment and investment for education in general and for career education.

State support to education at all levels has more than doubled during this administration. This increase, the largest in history under any governor, has significantly aided development of career programs in elementary and secondary schools, vocational centers, and community colleges.

Since 1968, the commitment of categorical aid to vocational education has increased from $7 million to $16 million.

The real test of the success or failure of our education system, however, cannot be measured in dollars. The success of our education system is measured in its ability to assist each individual in an education program leading to a useful and fulfilling career. The education system and all vocational education programs must be geared toward providing career education in programs that lead to real career opportunities and employment.

I am proud of the responsible action Illinois has taken in establishing a policy to allocate funds to vocational education projects on a system of priorities based upon increased sensitivity to the state's occupational needs.

Beginning in the 1969–70 school year, any school seeking state or federal reimbursement funds for vocational and technical programs was required for the first time to submit to the Division of Vocational and Technical Education a local one-year and a five-year plan. These plans detailed both the yearly and long-range programs, facility plans for vocational and technical areas, and funding, all in a priority ranking. During this past year, more than 650 of these plans were reviewed.

The success or failure of our vocational education program, of course, is also particularly dependent on the understanding our young people have of the world of business and industry, and the skill required to pursue any chosen career.

Early in 1969, the Governor's Advisory Council recommended that career education and career awareness begin at the elementary level. The state has followed up this recommendation with a major effort. As a result, Illinois now leads all other states in enrollment in occupational information and orientation programs at the elementary school level. Our enrollments in this area are now in excess of 685,000.

The state has also funded an experimental, computerized vocational information system which may in the near future revolutionize vocational

counseling. This project is well known nationally and only last week was visited by a group of educators from The Netherlands.

The importance of the "career education" approach to our educational system has been voiced by our President and espoused by the United States commissioner of education.

All educational experiences, curriculum, instruction, and counseling should be geared to preparation for economic independence and an appreciation of the dignity of work.

Educators increasingly are directing their efforts toward preparing students either to become properly employed immediately upon completion of a high school program, or to go on to further formal education. The student should be equipped occupationally, academically, and emotionally to spin off from the system at whatever point he chooses—whether at age 16 as a craftsman apprentice, or at age 30 as a surgeon, or at age 60 as a newly trained practical nurse.

On April 1 of this year, I appointed the membership of the Governor's Advisory Council on Vocational Education, and on April 19 of this year I created a State Manpower Planning Council, with broad responsibility for establishing manpower objective, priorities and policies. I plan on continuing our efforts through these councils to review and redirect our energies in vocational education.

But Illinois also needs this group of assembled leaders, each here by my personal invitation, to take the opportunity to suggest changes in our educational system that will not be outrun by manpower opportunities or technological change.

We need—from you—suggestions for change. We need overall vision, leadership and common purpose—and not a little accountability. You are here as the agents of change. And let me assure you that your ideas, suggestions and recommendations for action will receive my careful consideration.

I am confident that Illinois needs to be and has the capability of being first in vocational education and first in socio-economic progress.

You have received a series of draft "white papers" on issues of special concern. Tomorrow, these thoughts will be presented and you will be asked to study and discuss them.

Because of the impact this symposium can have on the entire scope and direction of vocational education in Illinois, I believe your involvement in this endeavor is of the utmost importance. The symposium is a large step toward a better perspective regarding vocational education priorities, better communication among all concerned groups, and a deeper appreciation for—and among—our many publics.

I think it represents a new concern for vocational education, and a thoughtful attempt to work toward solutions of old problems in imaginative and forceful ways.

Your presence here is most heartening, and I wish you all well in moving ahead in this vital field.

MR. ARTHUR A. FLETCHER
Executive Director
United Negro College Fund, Inc.
New York

I want to divert from the speech I sent you because as I read the roster of people who are here and assessed their possible level of interest, I got the feeling that hopefully you had read the speech. What I would like to do is give you some of my views and experiences as the Assistant Secretary of Labor. As people involved with vocational workers, I feel that you are prepared to deal with the problem that we will be talking about.

When I was in the Nixon Administration, they used to refer to me as the Black militant in residence. I was the first Assistant Secretary of Labor to have had the privilege of heading a manpower program before going into a cabinet level position. And I was the first to have had the opportunity to try to run a manpower program under the 1968 Manpower Act.

While I was in the state of Washington, it was quite an "eye opener," shall I say, to have the grassroot experience of running a poverty program without ever realizing that one day I would be an assistant secretary and sit in the Labor Department and participate in all of the decisions that are supposed to be remedies for the poor. So I want to come at you a little differently.

One of my experiences, incidentially, happened while I was running a manpower program in a rural, isolated poverty pocketed place called East Pasco, Washington.

I had gone there to train 365 heads of household. They should have been the breadwinners provided they had the skill and ability to win some bread on the labor market. However, one of the first shocks we discovered after all the research had been done, was that the researchers failed to point out that we were going to end up training 60 per cent women and not men.

I had one woman whom I'll never forget. Her name was Clara Reese. She was doing rather well in the program. But like so many others from the poverty pockets, she had family problems.

While a sophomore in high school, Clara dropped out and married a fellow named B. W. She gave birth to about four or five children. Later, she and B. W. separated. When the Manpower Program came along, Clara was on the Aid to Dependent Children. She decided that she wanted some training, came into the program and did exceptionally well with basic education. She showed some signs of going somewhere as a medical assistant which nowadays is called a paraprofessional in the medical field.

One day, all of a sudden her grades began falling. She was frustrated and wasn't getting her assignments in on time. This attitude continued until finally her instructor advised her to go to the office and talk with

Mr. Fletcher. He told Clara that maybe Mr. Fletcher could find out what was wrong and help her.

So Clara came into my office and sat down. I said, "Clara Reese, what's the matter. Your grades are falling off. You're just not doing the things we know you're capable of doing." She said to me, "Mr. Fletcher, I see B. W. everyday. He has a new car, nice clothes and another woman. He ain't paid his alimony and it's worring me so bod, I can't concentrate." I said, "Clara, the next time you see B. W. tell him that we're going to repossess his car. Now remember what I said. When you see him just tell him, if he doesn't catch up on those alimony payments, we're going to have that car repossessed."

The next time I saw Clara, later in the Fall, her hair was done. She had on a new dress. She had two of her daughters and they were wearing new dresses. Clara was smiling and her records were soon looking better. I said, "Clara, what happened?" She said, "I called that B. W. and said, 'B. W. if you don't pay the back alimony, I'm going to repossess you.'" B. W. didn't want to be repossessed, so he caught up on the alimony payments.

I'm going to talk about human resources. Let me tell you how I look at a job and the capacity to do some work. Let me say that again. I want to talk about how I look at a job and the capacity to do some work.

When I was the Assistant Secretary I used to refer to sharing the nation's wealth as sharing the nation's work. If a person can't work in this system, he will not enjoy the wealth that this system can produce. That's what it's all about. When you get right down to it, if you are going to share the wealth of this country, you've got to have the opportunity to work. This is a work-oriented society in spite of the fact that we invest a whole lot of money. It looks as if it might be an investment society. But the hard, cold fact is that this is a work-oriented society. If you don't have a job in this system, again to repeat, you're not going to be able to share any of the wealth of this country.

Now, let's think about it in that light. When I was the Assistant Secretary of Labor, I used to take a look at how we as a nation used our most valuable resource, which is our human resource. I was shocked to discover that we do all kinds of planning except planning the use of our human resources. This laissez-faire concept was supposed to have an economic concept. We plan economics. But somehow, the laissez-faire concept still hangs on when it comes to human resources.

It was my experience that we don't plan in order to use our human resources in any way. In fact, I found some people in the Labor Department who said it was tantamount to Communism to think in terms of long-term planning of human resources. The thing that bothered me is that our government is always producing subsidies that produce demand for human resources, but they don't plan how to use those resources. We will automatically assume that a subsidy in the ship building industry, the space program, rapid transit, and building super highways will create man-hours and man-years of work and demand cretain skills. We will appropriate the money without ever settling down to determine what kind of man power is needed.

For example, the ecology budget is a $31 billion budget. The start-up budget for ecology is $2.5 million. We just assume somehow, that somebody is going to know that $2.5 million will create 50,000 jobs. I don't

think there's anybody in here who has stopped to ask what kind of vocational and technical jobs do the professionals need to make ecology work. I'll say that again. I wonder if the Labor Department, HEW and the Senate Committee who listens to budget requests for ecology, are aware that the $2.5 million allocated to begin a national ecology program will create 50,000 jobs?

How many of you out there have ever heard anybody talk about the number of biologists, zoologists, design engineers and public administrators? This kind of planning isn't going on. Yet, we know the money is getting ready to be spent.

Now, what I found based on practical experience as well as planned experience, is that because we have failed to do the kind of planning that ought to be done to go along with those subsidies, we often find professionals performing jobs that should be performed by specialized technicians. How many times have you found a Ph.D. in physics not really doing that job. He is doing his own technical work because we had not developed any technicians to support the metallurgists and Ph.D.'s and others in the space program.

For some reason, we just don't want to plan in that area. I don't understand it. We just don't want to plan in that area. I'll give you a good example. While sitting in this audience I listened to the debate about medicare throughout the latter part of the fifties and early parts of the sixties. During the planning stage of the medicare program we sat silently by and let the United States Congress allocate all that money to create medicare and knew darn well that the demand was there, but we didn't have enough doctors, nurses, and medical technicians. In fact, as a result of medicare, we almost destroyed the country's medical system because of the lack of planning.

We're finally getting ready to do a little planning before we implement the next piece of health legislation. May I ask, are you aware that the highway lobbyists are in Washington talking about another 40 billion dollar subsidy for highways? The question that ought to be on your minds as vocational or career educators, is how many man-hours of work will this 40 billion dollar subsidy create? Where are the highways going to be built? What kind of human resources are going to be used? What is the attrition rate going to be? How many people will die, retire and leave a certain craft or certain profession? What's needed to replace them? Are young people going through our schools aware that the first job opportunity is not through job growth, but through mere attribution which means replacing those who are dying and/or leaving the labor force? I don't know. I'm supposed to believe that this type of planning isn't going on. I know it wasn't going on when I was teaching in 1965. I don't know a school system in the Bay area that did anything to absorb youngsters into the Bay area rapid transit system. Yet, all of those school systems knew that the Bay Area rapid transit system was going to be a $2.5 billion program.

The school systems also knew it was going to take a certain kind of work force to maintain it after it was built. I was teaching school in Berkley in 1965 at both the High School and Junior College level when the transit program was started. I personally knew that we didn't have the curriculum at Oakland City College or at Oakland Tech., or at Oakland High School, or Berkley High School that prepared anybody to

work in the rapid transit system that was coming into the Bay area. This is the kind of thing that has bothered me. I don't know why we sit back and look at these subsidies come down the track and realize they create jobs and business employment opportunities. Yet, we do not prepare people to take advantage of the jobs coming along.

Let me give you another one right quick. The other day I was appointed to be the chairman of a committee that will train 60,000 Public Housing Administrators by the end of this decade. It's a new craft and a new profession coming into being. I'm not nearly as worried about the 60,000 Public Housing Administrators as I am about the support staff that's going to be needed to make those sixty-thousand administrators effective administrators once they get the job to manage public housing. And here again, I haven't found any planning below the professional level going on in Washington, D.C.

We'll plan for metallurgists and we'll plan for space engineers. But for some reason if you don't want to be that, then, we're not going to plan you in. Now that bothers me.

The other thing that bothers me, and now we're going to get down to politics, are those who have vested political interest in the status quo from an economic position and don't really want change.

One of the first things that shocked me when I got into the Labor Department was to discover that the Manpower Act, which was supposed to retain elements of the American force, was limited. I'm going to make some of the labor people mad when I say this but if certain labor unions didn't want their work force to grow, you couldn't use Manpower money to train anybody to work in those crafts. Yet, those same unions went to the Hill and petitioned to Congress to create subsidy for man-power of work. They would then refuse to let the Manpower Act be used to train people to work where the demand had been created. What am I saying? I'll tell you what I am saying.

There has to be developed an attitude along the lines of a willingness to share the work that this system can create. I think the highway subsidy is the one that shocked me the most: to watch the demand for building highways grow, and on the other hand to watch the highway work force shrink during the 20 years of that 40 billion dollar subsidy. It has not been in existence 20 years; but when they started building the highways, the work force in the highway construction industry, according to the Labor Department reports, actually shrunk.

I took a look at certain labor unions. As a result, I authored the Philadelphia Plan. We've got to raise hell about sharing the work force and this is basically what the Philadelphia Plan does. The Supreme Court ruled that it is legal, so I don't back away from talking about it now.

Let's look at the labor unions involved in the highway industry. Over a period of ten years, some of those unions didn't grow one member. When a member died, they would let his uncle, niece or nephew come in. There was no union growth on the basis of demand in terms of supply. What I'm trying to say is that besides all of the planning you are going to be doing here, there has to be some basic changes taking place in the Hall of Congress, in the legislative branches and various other levels of government. The point I am trying to make is simply this—don't recommend legislation and make it law, if you don't intend to follow-up and see to it that it is enforced. Let me say that again. Don't plan, and don't

recommend legislative and administrative changes if you don't intend to see to it that what you get on the books is enforced.

I discovered when I was Assistant Secretary of Labor, it was very easy to pass a law over here and then turn right around and frustrate the intent of that law by enforcing guidelines that would make it impossible to carry through the intent that was in the legislation.

For example, in equal pay for women, I found the equal pay law had been put on the books but no standard had been devised for enforcing it. As long as there was no standard, the law was never going to be enforced. The people who were depending on the law for remedy were never going to realize the remedy.

It may come as a surprise to some of you to discover that there were no standards in any of the Civil Rights legislation passed. Consequently, it failed from an enforcement point of view. There was no standard for equal employment opportunity. Nobody had ever devised what is equal opportunity. It is a vague concept. What it is? Can you legally define it? There was no legal definition to it. That wasn't the only law that I discovered in the work place administration area. I discovered that there were very few standards of work. I discovered that there were very few standards dealing with the enforcement of Civil Rights and the benefits for women.

I also discovered that some of the legislation and, again I'm coming back to the Manpower Act, had been developed so that you could not use federal money to train people for certain crafts if certain people already in the industry or craft didn't want them. Now, if you're not willing to deal with this, then you're not really willing to deal with the change that the future generations are demanding. This is really where it's at.

Let me conclude by making this point. The Federal Government spends 100 billion dollars a year in various kinds of contracts buying services and products from private industry. This figure does not include state and country government. They plan, buy and create this demand without ever asking industries, those who are going to get those subsidies, to come forth with some kind of comprehensive man-power planning program so that the man-hours and man-years of work are shared. Now, if this isn't done, then you're not going to convince anybody that there's a real future for them in technical or vocational training.

I will say my last point about technical and vocational training to you as vocational educators. I have five children and have taught school at Berkley. I have never taught a child to prepare himself for a vocation at the end of the road. I always taught them that a vocation is a tool that should be used as a means for further advancement.

Let me give you a personal experience, if I may. I forced my boy who is now going to law school, to learn to be a welder before he entered law school. If anything should happen to the old man, or if he should decide to get married and would want to go back to school, at least he would have a welding skill with which to work his way through school.

Today, Paul is working his way through Washington State University Law school and welding in the Lockheed Ship Yard. He's never been sorry that he is a welder. I worked my way through college as a licensed barber. And I'm tickled to death that I learned to cut hair.

While I was at Berkley I did some research with black professionals. I was interested to know how many black doctors, dentists, and other

black professionals in the area did something else before they began working as professionals. The reason behind my research was that black youngsters in deprived neighborhoods looked down on a craft. Although we kept saying the demand is out there, the black youngsters would say, I don't want that kind of job; I don't want to be trained for this, or I don't want to be trained for that. Somehow, I felt we had to show them that you don't have to stop there just because you begin there.

My study centered on the Bay Area Houston Law Club which has some 300 black lawyers. It revealed that well over 45 per cent of those black lawyers had a skill or craft of some kind before they returned to law school and worked their way through. I found there were just as many doctors who had worked their way through Maharia and various other medical schools by learning a skill.

I began to tell the youngsters that a vocational skill can be the greatest tool to help you get where you want to get. I used that as an example of how to keep youngsters from looking down at vocational education training. I'm simply pointing out that it's a way to finance whatever else you want to do and, at the same time, to develop a skill in the process of doing it.

I have wandered away from my speech. But in the heart of the speech I was trying to say that you don't find any planning for the use of human resources especially for people with limited skills. And I don't find the federal, state or local government or the business community planning human resources into our economy. Yet, they create demand for their services.

I would like to speak briefly about a study that is being done by the Labor Department. It is an analysis of the major metropolitan areas and major employers in the south. From this analysis, the Department is trying to determine what kind of use is being made of the labor force, how much of it in any given industry will die, retire, need to be replaced, the growth in local, etc. The seven cities which applied for the study grant included Houston, Memphis, Nashville, Atlanta, and I forget the others. In Memphis the study deals particularly with the black labor force of the 15 largest employers in that city. I think it's an interesting study. Not only does the Memphis study reveal how minorities are being used in the work force, but the entire study also reveals how the total work force is being used in each of the major industries in these cities. I would recommend to you, among other things that you ask for copies of this study. If it seems feasible and reasonable to you, request the Governor and the State Legislature to do the same kind of study for given labor markets in your State so that you can determine how you are using your labor force and what demands are going to be made on that labor force, industry by industry. It's what I call an industrial work force profile for the utility industry, the warehousing industry and right on through. It's a very valuable document. I recommend you read it.

MR. JOHN D. FILIATREAU
Reporter
Louisville Courier Journal
Louisville, Kentucky

When lots of people are out of work, unemployment results.
—Calvin Coolidge

Approximately 14,500,000 persons experienced some unemployment during 1970. It has been estimated that an additional 650,000 belonged to the category, "discouraged workers"—those persons who would like work but have despaired of finding a job (and who consequently are not recognized in government unemployment statistics).

Few of us would quarrel with the suggestion that unemployment is one of our greatest social domestic problems. But most of our efforts to solve the problem reflect the same futile mindlessness as Silent Cal's remark.

Most of our honest efforts to find an answer are formed by the knowledge—or at very least a strong suspicion—that its crux lies in the relationship between the world of work and our system of public education —if there is such a relationship.

One labor study indicates that the difference in educational attainment between workers and work-seekers is no longer significant. Perhaps after a certain level of education has been achieved, employment is to some extent a matter of accident. Perhaps schooling and employment are less related than we have been led to believe.

Of course, there is a peculiar, mythological connection which every student must accept on faith: the belief that, whatever in hell work is all about, he'll be ready for it once he has his schooling socked away.

That may be the most dangerous and destructive lie taught in American society. It has two levels of effect:

For those fortunate enough to be educated in the classical, college-oriented sequence with which Americans seem obsessed, it involves a protracted adolescence which may extend to completion of three or four graduate programs—by which time the student is 30 or older, well-programmed but unbelievably naive about his future as a producer and consumer in the business world.

In effect, such a student's identity is withheld until the completion of a rigid sequence of studies which began when he was six. It is as if he is given a soul with his sheepskin, as if he has endured another birth and arrived at the threshold of his "real" life.

And for many students, "real" life begins with an oppressive sense of disillusionment. Evidence has been mounting for years that many of them are beginning—however belatedly and clumsily—to realize that such preparation is inadequate. While it does provide a platform from which material success is more likely, it has no *real*, essential relation to employment—and is no guarantee of happiness.

But for those millions who for lack of money or lack of hope have

avoided being channeled into the college sequence, education has been an even crueler lie.

Some educators have characterized their limited education (which usually is terminated at high school graduation, if not before), as "education for stupidity." The late Jules Henry reviewed a sample of high school textbooks and pointed out six specific areas in which students in our secondary schools are educated to be stupid. Of these six areas, three are directly related to the failure of the schools to educate students about the world of work:

—Stupidity about labor. Typical texts inform students that it was labor, through its organizing efforts, that caused rioting and bloodshed; that management insensitivity to worker concerns is now ancient history; and further infer that *any* militancy is suspect.

—Stupidity about economics. The books leave students ignorant about the workings of economy in society. They are instructed that depressions just happen, work themselves out and then mysteriously disappear.

—Stupidity about poverty. Students are generally trained to ignore its existence (which is especially absurd when they are themselves poor), and are given no appropriate data or analytical scheme with which to make sense of the poverty they see.

Thomas Pettigrew has said that the public school has three essential functions—to prepare students to make their livings by participating in useful occupations; to augment students' productive potential; and to help students cope with and understand themselves.

The first of these functions—the need to relate education to career-choice—is the paramount duty of our school systems. And the one at which we most abysmally fail.

In many—most—cases, the education offered in our public schools is aimless. Most students simply cannot see what school has to do—*really* has to do—with their futures. This situation must inevitably lead to alienation—and all our breast-beating about the evils of alienation will be wasted.

It would be instructive to consider the situation in more concrete terms.

Young members of street gangs in the Bronx are—almost without exception—dropouts or partial dropouts. Their hatred for schools is second only to their hatred for prisons. Yet they enthusiastically applaud the efforts of a Bronx official—and a white man—who has tried to get the gangs into storefront job-training centers. Writer Gene Weingarten notes, "It's schools that the gangs put down, not education." I feel sure that you have noticed a similar attitude among many youths in your own community.

In our schools, for the most part, students are not encouraged to examine critically the structure of employment. On the streets, they must make such an examination, but are generally without the data to make the examination useful or knowledgable.

My wife teaches black students in two ghetto junior high schools, where the world of work is no more a part of the curriculum than in any other school. Her students grow excited when she offers them even a shallow explanation of such terms as "mortgage," "collateral," "interest," "stock," etc. . . . words they have often heard but never understood . . . words they will someday need to know.

But her students do display a primitive understanding of the work world. They know what a nickel is. And they'll work surprisingly hard for it.

—Which, after all, is what they will certainly be doing when they enter the work force. However, our hypocritical bias is that education should not acquaint students with materialism. Strangely, every school's basic methodology involves just that principle: performance and reward.

That is simply how the world works:

Ours is a credential society, a ritualistic complex in which the potential worker (student) is selected, advanced and transferred on impersonal, often arbitrary criteria. The school is not a sanctuary in such a society, nor a place one attends for the love of learning. It is first of all a place where one prepares to make a living. Lack of success in school really can jeopardize future earning power. Thus the schools reinforce the credential society, and we are all locked into it from our earliest years.

Yet the school systems do everything in their power, it seems, to shield our young people from the realization of this basic, immutable and crucial principle: school and work are essentially the same ballgame.

> Everybody likes and respects self-made men. It is better to be made in that way than not to be made at all.
>
> —Oliver Wendell Holmes

Vocational education, it seems, offers some hope of eliminating such hypocrisy. Its primary goal is to enable its students to enter the world of work; in that regard, it is without pretense; it relates to the students' personal solvency, and further relates to the economic vitality of communities.

In theory, the operation of vocational programs is simple. Wet a finger and put it high into the air to determine the need; buy the equipment and expertise to teach skills and make students employable; advertise and recruit a number of candidates; transform them into skilled workers and turn them loose to grateful employers.

Though this analysis is certainly and unarguably simplistic, I think it will serve to make a point: given the money and the manpower and a certain amount of financial and political support, and it is no great task to set up and operate a vocational or technical institution which does its job. However, the philosophical problems raised along the way are a bit more sticky.

All too often (dare I say 'by and large'?) vocational programs are only dumping-grounds for youth who have been judged unsuitable college-material. Too often, vocational education is geared and directed at the declining industries of the nation. Often there is a tendency to overlook the sensitive relationships between unions and employers. There is often a serious lack of reality-orientation. Too often, vocational education in the high school or junior college is a waste of time.

And it's in schools that most vocational training is offered. In Chicago during a one-year period spanning 1968 and 1969, one of every five poverty-area residents interviewed for a labor study had completed some course of job-training. More than half had received such training in high

schools, trade schools or junior colleges. Three of every four were in the labor force—either working or looking for work.

But in Chicago, unlike the other five major American cities surveyed, those who had completed a course of training were just as likely as those who had not to have been hired eventually at an hourly wage below the federal minimum wage.

In Chicago, only 4.8 per cent of those who had completed a training program had done so by means of an apprenticeship. Chicago ranked lowest of the lot—and those who did get such apprenticeships were most often white, and most often were older men.

Those trained in the Armed Services or in apprenticeship programs were subsequently hired at a significantly higher wage than those trained in school programs.

Those who did find employment usually obtained jobs which were unrelated to their prior training. They were usually trained as plumbers or carpenters—the more highly skilled, better paying crafts—but had been hired for such jobs as gas station attendants, assembly-line employes or local-delivery truckdrivers.

I think it is very clear that Illinois'—and Chicago's—facilities for vocational education have met with something less than unqualified success. And that the nice statistics—so many million people exposed to some sort of vocational training each year—are not so significant as we would like to believe. The surface has not been especially efficiently scratched.

As I have noted, the great percentage of nonwhite minorities is not pointed toward college; thus these groups are, generally by a process exclusion, shunted to vocational programs either within the public schools or in such substitute programs as the Job Corps. In the study mentioned a little while ago, those who had completed "special manpower programs" financed by the federal government or by private organizations were earning *smaller* wages than those who had had no job-training at all.

And many of the more desirable kinds of employment in industry are as inaccessible to members of minorities as a college education.

The exclusion of blacks and members of other minorities from such unions and trade organizations is usually not an active policy of segregation; the time for such out-front bigotry is past . . . Well, *nearly* past, anyway. But the long tradition of closed doors is preserved in a more passive form: efforts to include such persons is either not made at all, or is made with a lame and inadequate effort.

AFL-CIO President George Meany has well set forth the problem. He finds it ". . . understandable that a man who has spent years learning a trade, who is proud of his skills, wants to pass it on to his son, just as a merchant wants to pass on the business he has built to his son."

But this aspect of the work world is generally swept under the rug—"ignored," or "tolerated"—when a vocational program is planned or evaluated.

Vocational programs have a similar problem with industry. Many employers hide behind a notion that training is best accomplished by the employer himself—especially if tax funds are made available for his activity.

According to some educators, notably Arthur Pearl, there is an even more essential objection to vocational education programs:

> . . . Even if vocational education could be made to work, it shouldn't! Underlying vocational education are differential stations in life. The school points the student to his appropriate place. Rather than enhancing choice, vocational education denies choice. The result is premature foreclosure on career . . . When occupation is the issue the overriding consideration must always be to keep the pathway leading to credentials open to all.

But this quite valid objection needn't be crippling. As long as vocational education is not offered at the expense of general education, and as long as programs are flexible enough to offer maximum choice, vocational education can avoid such destructive manipulation of students' dreams.

What is more crucial is the link between such vocational training and the available employment resources of the community. Only when vocational programs are intimately involved in the community's work world can vocational education be meaningful.

Vocational education must also dare to go beyond its traditional limitations. Clearly, only persons with sophistication beyond technological skill will have much chance for upward mobility (which is the point of the whole effort). Vocational training must be as demanding, as exciting, and even more reality-oriented than the education offered to the college-bound youth. The boy who chooses to become an automobile mechanic must have the foundation and basic skills to allow him to become an engineer if he should ever aspire to such a goal.

In other words, employment at the entry level cannot be the singular goal of vocational training programs. After all, if half the graduates of a vocational program are employed at or below the minimum wage, the program's 90 per cent placement statistic may have very little integrity.

So far as it can be arranged, the student not bound for college should be in the same classes as the student who is college-bound. Dividing the students into separate classes when it is not necessary can only damage both groups.

Such segregation can only serve to reinforce the greatest behavioral difficulty encountered by the administrators of vocational programs: the notion that vocational programs and classes are for "dummies." There is much talk nationally of a new attitude about vocational education; however, it is my impression that this new attitude is more prevalent among educators than among other people.

Vocational programs are still "stepchildren" in the educational hierarchy, if not "orphans." They are still only marginally funded, unenthusiastically supported, largely ignored—by educators, politicians and representatives of the media.

Until this situation is changed, members of the public will continue to think of vocational education programs as second-class institutions. And the situation won't be changed until administrators of such programs can show some first-class results.

> God first invented idiots, that was for practice; then he made school boards.
> —Mark Twain

Planners of vocational education systems must address themselves to several sectors of our society, creating a vital network of efficiency and creativity. Some of those sectors are:

—School systems.
—State and local governments.
—Local industries and Chambers of Commerce.
—Labor unions.
—Whole communities.
—Lastly, the media.

The first and most pressing need is for vocational programs to define clearly their functions and to determine their status in the total educational structure of the local system. Vocational programs are often virtually administered at the state level, with little relation to their local school systems. The fact that vocational programs generally have the stigma of "poor image programs" (institutions for "dummies") must be confronted and dealt with.

Career-oriented vocational training must begin at the very earliest stages of the educational process with very strict attention to the real world. Texts must be used (first must be found) which honestly reflect the real world outside the school. Critical examination of the work world must be generated and encouraged. Curricula related to labor, economics and poverty must be criticized and re-written if they exist—developed if they do not. "Track" systems must be eliminated in an effort to create an environment of intellectual and career freedom. Local school boards must be made to realize the stake they have in vocational education, and must be made to pick up a more proportionate share of the cost. Organizations of teachers must be prodded from within to examine their priorities as regards vocational education.

State and local governments must be further convinced that vocational education is worthy of extensive subsidization—proportionate with results shown. Governments must be made to understand that their financial support alone is not enough, but that their full efforts and concern are also needed. Other, related divisions of governments—bureaus of employment, business and economic development, labor statistics, for example—must be persuaded to share their resources. And executive action must be taken when it is warranted to see that this cooperation takes place.

Use of relevant, substantive labor data must be made possible, no matter what the cost. Most data currently available to planners and evaluators of vocational programs are trivial and irrelevant—and sometimes downright dishonest or misleading. Simple, one-dimensional statistics, compiled without attention to controls, are essentially meaningless.

Local industry must become involved in the vocational education effort, by contributing equipment, financial help and professional expertise, as well as supplying pertinent data concerning employment needs and projected needs. Chambers of Commerce are enviably equipped to share this burden. Without the enthusiastic and honestly self-serving involvement of industry at all levels, vocational education is a wasted exercise.

Industry representatives must have a voice in the administration of vocational programs.

Kentucky, my home state, has developed a well-respected network of vocational education facilities, primarily notable in those instances where cooperation between educators and industry representatives is most extensive. The state's most promising programs are those in which educators and employers together prepare students for employment. Students

in such programs are paid (usually at the minimum wage) while involved in on-the-job training; at the program's end, the training employer gets the first shot at the graduate he has helped to train—at the normal starting wage. Communication between employers and educators is such that follow-through support and data-collection are facilitated.

Sometimes this cooperation takes place on a relatively grand scale. A new vocational school is being constructed in Louisville. Local trucking companies, faced with a crucial shortage of qualified truck mechanics, have contributed more than $100,000 worth of equipment to the not-yet-opened school, so that a truck-mechanics program can be taught there. The nice thing is that everybody benefits from such an arrangement: the students, the prospective employers, the educational system and the whole community.

The labor unions may prove to be the toughest nuts to crack—their bureaucracies have grown as complex and rigid as those of our schools. But I cannot overstate the need for winning their cooperation. The unions are trying hard to live down their tradition—their well-established tradition—of racial and social bigotry. And guilty consciences are keys whereby strange doors are opened. Many unions are rapidly establishing traditions of liberal social commitments. Honest and forceful efforts on the part of educators to broaden communications with union representatives may eventually result in an unprecedented boost for vocational education. The benefits of such communication would certainly be worth courting.

Perhaps the need for vocational educators to address themselves more pointedly to the communities they serve is as great as any need we have. This should be done without paternalism, condescension or pretense. In a shameful number of circumstances, communities are virtually ignorant of the vocational education resources they have. It often seems that nobody knows such institutions exist except the students who attend them.

One reason for such ignorance is that vocational educators have all but ignored the benefits of media exposure. Such exposure is crucial to the elevation of vocational programs' poor image to the public at large, and essential to the recruitment of a broad-based selection of students. Too many vocational programs are practically closed to all but special groups of blacks, handicapped persons and veterans of "special education" classes for those judged to be of low intelligence. Persons destined to attend college—who may be intensely interested in developing skills taught in vocational institutions—generally are not exposed to the availability of such programs, except for the "shop" classes in their high schools.

May I digress for a moment to complain about something I find very annoying?

Now and then one does stumble upon evidence of media exposure for vocational programs. This usually happens when a person is watching early-morning television and has grown blurry-eyed from watching public-service spots. And it's hard to tell the manpower ads from the anti-drug commercials. Drug-abuse and unemployment, after all, are both social diseases—at least, that seems to be the attitude of the persons responsible for such drivel.

That kind of media exposure actually reinforces the negative attitudes a patron of vocational education so often encounters.

It seems to me that the producers of such commercials could be doing some wonderful things to acquaint viewers with the satisfactions of many kinds of craft-oriented employment: visual, not verbal; demonstrative, not flaccid; joyful, not down-in-the-mouth; human, not paternalistic; and realistic.

Such exposure is also crucial to the recruitment of adult students, who may be unemployed, underemployed, discouraged or unsatisfactorily employed. I have yet to hear of a vocational education system which is even barely tapping that population or coming to grips with its needs. One reason is that there is a prevailing notion that vocational education is for kids.

I do believe that vocational education is worthy of being saved and expanded. It can be an incalculable asset to a community and to the three-quarters of America's young people who choose not to attend college. It can be a freedom-enhancer, and a chance for millions of persons to find relative security and a measure of happiness. It can provide specific answers for hard and concrete and desperate needs, on a relatively short-term basis and with irrefutable results. It can be a great asset for those Americans for whom opportunity seldom knocks. I think it can even have a beneficial impact on other kinds of education by proving that relevance and accountability are not out of reach.

But vocational education in America is presently doing very few of these wonderful things, and with only random successes. It can begin to do them if its planners and evaluators direct their attention to three essential concepts: freedom of career-choice in a credentialed society; honesty about the relationship between schooling and career; and intimate cooperation among all sectors of society which have a stake in the economic vitality of their communities.

> Education ain't just what comes out of the books, but it's everything that goes on in the school and if you leave school hating yourself, then it doesn't matter how much you know.
>
> —H. Rap Brown

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Perhaps what I am going to say and what some of the others are going to discuss are going to overlap a little bit. In fact some of my remarks have already been discussed.

According to the structure of the invitation I had quite a bit of latitude in what I am going to talk about as long as I stay somewhat within the boundaries of "Investment in People." I'll try to do this the best I can and look at this subject from the standpoint of the airline industry wherever possible; however, I do reserve the right to speak outside these boundaries—I understand we are free to express our own personal feelings and our own personal thoughts, and that's precisely what I am going to do.

Well, first of all, I see in the scope of this meeting three basic areas, and this is how I have approached them. The first area is vocational schools. The second is the two-year community college, which offers both trade and academic opportunities. Finally, is the four-year college course, or the four and one-half year as is structured at Southern Illinois, which offers some special courses or trade courses as well as a full-fledged college degree. I am going to confine my remarks to public supported schools and exclude schools privately operated for profit. You must remember most of my contacts in these areas are pretty much in my own field. Generally I deal with schools which turn out mechanics, engineers, etc. Although the etc. has become a little more fuzzy at the undergraduate level. So I want to start right off with the vocational schools.

So much has been written about this that I very carefully refrained from reading very much about it prior to this talk. This is so you wouldn't be listening to my quoting from somebody else, who was quoting from somebody else, ad infinitum. So I am trying to give you my own personal thoughts. First and foremost I feel that vocational schools should be re-named and called "Experience Schools." The reason that I say this is that thanks to having to prepare this talk, I looked carefully several Sundays ago at our Sunday Kansas City Star want ad section, and I became rather fascinated with it; in fact, I spent quite a few hours on it. It would have been easy to have gone to great lengths to give you a lot of statistics, but they would only be relative, because in a random sampling, which consisted of looking at the first 14 jobs under the help wanted ads, I found out that 11 of the 14 *demanded experience*. One asked for experience or education and the other two were not qualified in either area. It was interesting that there was an ad for drivers of an ice cream wagon, male or female, 18 years or over, good earnings. This is one of the few fair and square vocations where they didn't care about anything. But this was about the only ad that I could find that was so structured. Seriously, though, so many ads, although they had a large "This is an Equal Opportunity Employer" notice, either asked for a de-

gree and experience, or for both, which means if you have an education and/or experience, you will have equal opportunity with others who also have education and/or experience.

I'm not so sure this is equal opportunity. So ignoring the ads which were for specific degrees, because there are many jobs which do call for highly trained specialists, this "experience" thing hit me rather hard. If I were a young man looking for my first job, or even as our last speaker pointed out, an older man who had to change jobs, this would be a real roadblock. Experience where? Let's look at the job of auto mechanic. We all seem to like to look at him; I guess that's because we all have automobiles. Some of those who have worked on my car, I'm sure, are non-union; if they had any experience before they did it, it had been in laying railroad ties. So I feel there is some discrimination between a person who is hired as an auto mechanic because he has worked a little for the ABC Garage, or the "No Guarantee" Friendly Used Car Agency, vs. the young man who comes fresh out of a vocational school where he has had good, solid training by educators in automobile mechanics. Now, I think this applies to a lot of other trades. I want to discount the fly-by-night schools and look only at the educationally sound vocational schools.

The students coming from these schools certainly have had good experience, and enough, to get them started. They may have a better attitude on how to learn, and how to retain. This may not be true of a ten-year, experienced, top mechanic, or a person with other similar skills, who does have specialized experience. But *everyone* cannot always hire this kind of a man.

A few weeks ago I bought a new car, took a look under the hood, and I shut it down forever as far as I was concerned because the anti-pollution devices took up more room than the engine. And I hope whoever works on it, when all this plumbing curls up, has been *trained*, and *trained well*. I know they are not going to have too much *experience now*, because this system is relatively new. Real vocational schools, and I like to call them "experience schools," can give young or old men mechanical knowledge, ability to look up tolerances and adjustments and still have a sense of dedication to a job. When you hire people in the so-called level of vocational trade and ask just for experience, you really don't know what you are getting. You could be getting a person who even if though he may have had ten years experience, could have had one year for ten times.

Without vocational training, as a new worker, unles you are fortunate enough to work for a person who cares enough to make available his time to teach you job dedication, job interest, pride in your work, that there are other days on the calendar besides pay day, then all of this can mean very little compared to the person who perhaps for the first and last time in his life, has the hours available in school to be taught all of the things both mechanical and mental, which go into being a *good worker*. I have to reference our newspaper again, but it is our only one. But speaking of how you get coverage, for vocational schools as one speaker suggested, this edition had a tremendous article in the Sunday magazine on April 23, concerning the Kansas City Schools District Technical Education Center. I said I wasn't going to quote, but I'm going to change my mind because after reading this I managed to pick

out some paragraphs which support my feelings on how to make vocational education an investment.

Now note that the items picked out are not particularly the "hand-on" type of training items. Some of it is descriptive, some is philosophical, and I will not quote it with any real continuity, but maybe you will pick up what I am trying to say. Here are some quotes: "The students spend mornings or afternoons in individually paced multi-level courses using usually the most modern equipment of business and industry. The other half day they are enrolled in academic classes in their own high school preparing to graduate, not only with a diploma, but a saleable skill." Now in my own words: What you are putting out is a saleable skill—that is the real investment. Let's go back to quoting. "Technical education staffers know the center will truly be successful, however, only if its grads get and keep jobs," and I'll talk more about this later. One of the counselors noted, in this article, "I'm anxious to get kids a part-time job and eliminate the problem of no work experience." Now this is not where I got my idea of experience schools, but it did strengthen a belief that we should change the name, change our context from vocational to experience. Let me go back to some quotes. "Class room teachers are accumulating records of students to impress potential employers in technical drafting. For example, one teacher amasses not only a personnel file, but a portfolio of drawings for each student." Now wouldn't it be wonderful to walk into a prospective employer and when he asks for experience, the student can pull out this portfolio? Back to the quotes. "One instructor, who is in commercial building care, is turning slow learners and potential dropouts into window washers, floor cleaners, and all around plant maintenance men. And he says his requirements are: Be able to walk, to see lightning, to hear thunder, to be 17 years old in order to be bonded. He said he doesn't care about their ability, he's interested in placing a student so he can feel honorable in life." That's another terrific goal, for a vocational school. This was well pointed out last night by Mr. Fletcher. Well, enough of this series of disjointed quotes, but I hope they made my point.

As I read this article, it became rather apparent to me that this school was operating in the "experience" frame of reference versus the teaching-only frame of reference. Although this has been said several times, vocational schools *can* get help from industry, both large and small. And perhaps we sometimes overlook the little businesses, which do create an awful lot of jobs.

The usual inquiry from a prospective employer is the stereotype specialized field of occupation. However he *could give more* help in telling what he *really* needs, not only from a specialization standpoint, but from the human and the job experience standpoint. Actually, I think when employers advertise for experience, many times they mean work environment experience, such as working for wages with other people with all the pressures and all the sensitivities, and all the personality differences and so on, which are never specified. I remember when I began to learn navigation in the class; we had a lot of fun and we didn't have any pressures. But once I got into the air and had crew members look at me for the right heading, estimated time of arrival, and things of that nature, it was a whole new and different ball game.

You never generally have to worry about these kind of things until

you get into a real work situation. I also think of jobs where it is rather, or fairly obvious, that the worker will become a union member. Why not teach him a little bit about it? Maybe some of you do this. It has been suggested to have a student steward or a student's grievance committee. Maybe this may sound funny coming from a management man, but I think *this* is work experience. If the student is absent, call him in and find out why. Was it justified? Did he call in? Would his fellow students have to work a little harder on the projects since he wasn't there? This is real life experience. Do they ever work over-time? You know, this gets tiresome, and they need to know this, so give them something for it, either some compensating time or some extra grade points. Now I won't go on with all of this, but there are so many things I believe that we in industry (of all size) and the unions could feed into an association of vocational technical schools, that could provide the reality of technical teaching with true life working. This is why so many companies turn to apprentice-type training where the experience is learned along with regular training. Now, I suggest that we should put pressure on wherever possible to evaluate vocational training which is real life oriented, at least as a part of the real work experience. It would make your job of placement, counseling, and teaching much easier. There are some things you cannot learn in strictly short vocational schools, but before you shoot me down, I have not been talking about *these* kinds of jobs. I'm talking about trades, which are certain type of jobs that take a little less of what you get in a liberal education, and more of specific know-how on specific items. So let's repeat again, because I want to make this point. The schools should start thinking of themselves as experience oriented, not just vocationally oriented. You know this word "vocation" bothers me a little bit and I looked it up. I was at a Community College library one evening, and I found it in the big Webster. After you wade through a very interesting description, which points out that vocation is a summons from God to an individual or group to undertake the obligations and perform the duties of a particular task or function in life and divine call, and so on and so forth, it finally gets around to saying that vocation is work in which a person is regularly employed. When you work through about 4 more inches of description, you come to the real life definition of vocation, which is being in training for a specific skill or trade, usually with the view of gaining full empoyment soon after completion of the course. I was so happy to read that, because it brings me *right* to another point, which is the real crux of so many of our problems. How do we assess what jobs will be available after completion of the course?

I'm sure that many, many years ago some student, some place, walked out of the door of a vocational school with a diploma on how to make buggy whips as he watched automobiles starting to whizz by, and he slowly tore up his diploma.

Of course, there are basic jobs for which there are usually, and I even say this with reservations, openings available. When I was a kid you could pick up a job any time selling the Saturday Evening Post from door to door, or Liberty magazines. But, today, even these easily available jobs are harder to train for, to the degree that you have to set up full scale curriculum, you have to get instructors, all the props and the money, to get started. Therefore, how do we in industry and vocational

training get together so that the students are available at the same time as the jobs?

In the airline business, we probably will always have jobs, on occasion, for guards, typists, key punch operators, mechanics in many fields such as air frame, power plant, (which I will later refer to as A&P), radio, instrument, electrical, sheet metal, painters, fabric, and so on. We are going to have to have accountants, ticket agents, ramp agents, although some of these jobs sometime take very little specific vocational training. Of course, we like to interject into our new people our own philosophy and our own way of doing business, plus specialized training we just have to do ourselves. But our real situation, and I am sure this is true in many other industries, while there are some jobs that you have, or we have, which can be filled without too much outside training, there are those in which outside training is a real assist in giving us the basics so that the person can then be more easily woven into our particular business fabric. I would feel that a good personnel man, who is interviewing, is going to look much harder at someone who knows what he wants to do, plus the fact he has spent time, energy, and desire in getting training and experience in learning how to do it.

So regardless of the needs, regardless of how much training we have to do, vocational experience just has to be a good thing. None of this is new and that's why we're all here. But we are here to try to do something better than what we are doing now. I want to go back to the original theme of "investment in people." And let me wear my bank director's hat for a little bit. In this field, you get rather touchy about investments. "Invest comes from a Latin word which means to cover or surround, and while I think its earlier meaning must have been related to clothing or garments, I know that our bank president had better cover or surround our money from every direction, or he will be back in a vocational school which will teach him something besides banking. Similarly, we need to *surround* vocationally trained people, in whom large amounts of money and time, care, thought, concern have been made, and see that they are being used, not put in the waste basket of "no experience," but grabbed up as people who will do a good job for us. I'm getting carried away again with words, so let's go back to what action is needed. We will not discuss the "get-into-something quick" and "make a profit schools" as I saw in the early days of computers, which promised high returns for very little, or back in my day when there were lots of ads, few of you are old enough to remember, which said, "follow that man." You then sent off and received a little brochure to enroll in a course in private investigating. We should talk about real vocational schools, which need to advertise the product of their investment. Now earlier we heard about media and I'm talking about advertising. I don't think I have ever seen in the help wanted section (I may be wrong), anything but *job brokers* doing this kind of advertising. What is wrong with bonafide schools advertising to industry personnel and small businesses through trade papers or newspapers, that they are graduating good experienced men or women, both in the area of skill and in the ability to learn with hopefully good work habits and attitudes.

Many years ago I was Director of Industrial Relation in our Technical Services Department, and I really cannot remember being invited to too many vocational schools, and never too much pressure was put upon me

to consider their students. (This wasn't true of Southern Illinois A&P students, as we heard a lot about them.) But if there is a trade school organization, either nationwide or local, such as you represent in this state, it appears to me that maybe a 360/65 computer could actually list current job opening trends. Jobs could be key punched from newspapers, maybe key punched by vocational schools so it would be cheaper, and take on an operations research program, which would study trends and needs over the years. Remember, last night Mr. Fletcher was talking about the ship building start-up versus the lack of training being started up for people to fill the jobs. This is sort of what I'm talking about. This program could look back at history, and look forward at economic analysis, look at the cycling of different kinds of jobs, maybe predict, to some extent, providing the economy doesn't go completely crazy, some specific facts concerning the probability of what jobs will be open when students leave school. This is not beyond mathematical model capability, and surely, I would hope industry would try to help furnish all the facts that they could, since, I would like to repeat, timing is so important in getting a job. I know for sure that if we are hiring for certain jobs, for people walking in looking for these jobs, or if we go out looking for them, their chances are many times better than those who blindly send in an application blank with the hope that we are going to keep them filed, looked over, and referenced.

This doesn't happen, because those of you in industry know there is a terrible aging factor in applications. If you go back too far in old applications, it's sort of a waste of time. The people have either obtained a job, or moved, have changed their telephone number, or have lost their telephone. So, currency or timing is the name of the game, and this is where we all need to step up to the problem, if we are real serious about it.

I would never advertise I was going to sell my house two years from now. I'm going to put it up for sale when I am ready to sell. And with the vocational "experience" school, I see this as our common challenge. We need new methods of forecasting and tying industry and legitimate schools closer together. A lot of schools dump everybody out on June 1. Industry just cannot absorb them. I know that there is a lot of work going on to level these peaks and valleys, but I feel from the tenor of the charge of this meeting and from reading over your last three annual reports, we still need to do something different and to take advantage of today's know-how, today's technology, to make this hook-up work.

Since I want to show you I read something besides our local newspaper, I would like to point out in the April 24, Wall Street Journal, there was a front page article that the role of government and business might change in the future. About the middle of this article, it said, that along with many other things that should be changed, the role of government should be placed into diverting many young people *away* from universities and *into* vocational training. In other words, we should not try to send everyone through college, and we should be putting people into vocational training. I think this has been the theme of some of the abstracts of the speeches I was fortunate enough to read before I came here. So, it appears that many people are pointing out that actions being taken through your group are timely.

I have said enough about vocational schools, and would like to go to

the two-year college, the specific skill type, because, if not, I am going to be followed by the coffee break here in a minute.

I would like to look at people who can go to college only two years and then must go into the job market. Why this is so—I am not even going to try to discuss, because I know there are several million pages on it. But, to boil it down, some people must get the maximum they can in two years and then do the best they can with it.

What do we want from two-year college people? Well, I know for a fact in our business, and in most of the other airlines, we all started about the same time and in the technical end. Outside of a lot of our professional engineers, our supervisors of our maintenance, people generally did not have the advantage of a college education. It makes no difference at this point. We picked our supervisors from those who naturally became leaders, but I think soon we will have to face up to the fact that poor old Horatio Alger is probably dying. Many of my contemporaries with much better jobs, come from the school of hard knocks, plus, they have excellent brain power and we all know that there are a lot of non-college people who are millionaires today. But on the average, I think the emerging leaders in business, and maybe even in the unions, are going to be the so-called new breed, who are generally getting better educated.

I remember when I was Manager of Management training, way, way back, I heard a very interesting story, and I hope I remember it correctly. One of the nation's involved in World War II was having a difficult time in turning out good leaders in officer's training school, so they decided to make some psychological tests on what was happening. They wanted to see what they could write down as leadership capabilities. They wanted to find out what they could teach "more of" to make better officers. So they chose an interesting method. They assigned a large number of groups of men some tasks, some had no tasks, and they were control groups. When they sent these men off, they did not assign them a leader, there was no rank involved, and the men were asked to do the job strictly on their own. People were hidden around to record what happened, to watch their movements. They found out rather quickly that leaders would emerge from the group, like those that were asked to build a bridge across the stream, they came up with some ideas and if they were sound, they were accepted—if they were not, new leaders came up. In every case there were leaders who came to the front, took over and completed the job. The real point is yet to come, as it applies to this college business. They later very carefully tested and analyzed to see what magic ingredient these leaders had. And they found out there were no magic ingredients. All they found was that many of the abilities, or the capabilities which were displayed, regardless of what they were, the leaders who finally did the job had a *little bit more* than the average person. They had a little bit extra, not huge, gross amounts, but a *little more*. Perhaps then for some people this is the something extra, which will come from higher education offered by two-year colleges.

When I look at the age of our management, and particularly those of most of my industry, those who started the airlines are practically gone, retired, or otherwise and those of my age have about ten years or so to go to the official 65 year retirement.

There's a big group that came in at the end of World War II in 1946,

and if they stay the full route, they will be gone in the 90's, which is only 18 years away. So with attrition and other reasons for people leaving, I think there comes a meaning to us in the two-year college trained mechanic, who has two years of academic work, plus his A&P license and I think this is a great place for industry to find much of its first and second line management. I think even the unions in the future may have better leadership from elected representatives who have also had this extra education. And for just a little bit, let me forget my own viewpoint and go back to this investment in people. Look at it through the eyes of the student—he gets so much more of the basic beyond high school knowledge. It will help him what ever he ends up doing, and it will help him enjoy life a lot more. Speaking of enjoying life, I am probably the only college graduated geologist in our airline. Don't ask me how I got in the airline business, except if you got out of school in 1938, you know you were lucky to get into any business. But what I got out of that has made me enjoy life so much from the air that I never cease to look out and study formation, land topography, and things like that. So, there is something more to school than just getting a job. I am not espousing a theme that you must have a college degree to reach or obtain whatever level you desire. We all know this isn't true, as mentioned before. Many people without high school have gone to some very high places, but today, and each day as we go into the future, the general education of the whole country climbs higher. This isn't new to you; it's published every day. But I hope that the vocational school people, when they get on a job, will be able to take the time to go to a two-year college, probably at night, and get their additional training, which will give them also this advantage.

It's interesting in Kansas City to see the number of our mechanics who are going to a local community college to get their A&P license. Maybe one of the prime reasons now, is that we pay extra for licenses under our contract. But, for whatever reason, it is good for us, and it's good for them. A lot of those I have talked to, who are going back to school, are now realizing that there are some other advantages to this extra education.

I never view too much with alarm, or subscribe to the disaster complex, but here again I do worry about this inability to make good judgmental timing regarding jobs available versus the time people are coming out of school looking for these jobs. I think one of my most everlasting embarrassments was to become so deeply involved in what, I think, was the first big attempt made by the aviation industry to get together with community colleges. This happened in 1968 in the Kansas City Metropolitan Junior College District. We worked long and hard on an Aviation Briefing for Community colleges all over the United States. Maybe some of you were there. It was a very successful seminar and went on for three days. Air carriers, general aviation, aerospace industry, and the federal government became very closely involved with the presidents and representatives of many, many community colleges. Now, at that time the growth rate in the aviation industry was running about 35,000 additional employees each year. Aviation, in general, was growing faster than the economy as a whole. There were some really good forecasts made by the FAA and some universities which showed that in a couple of years we would not be able to get licensed mechanics, and in a few more years

we couldn't get anything. So many, many schools geared up to take on this challenge, and many were already geared up. Well, you know the story today.

In our airline alone we have a large number of furloughed mechanics, and they have to be recalled before we can start hiring outside. In 1968, the airline industry couldn't get enough airplanes, we couldn't get enough people, and this trend looked as if it would go on and on. Then things changed. Our capacity was too great, people didn't travel as much, we had to cut back.

But my main point of all this discourse is just as we started to cut back, the community colleges came through and started turning out the people we had requested!

I hope this is temporary, but here again, like the vocational schools, it's terribly difficult to stand up and answer the question what does industry want, and to give a completely straight answer. That's why I feel until we arrive at a better way to forecast, on a long or short range basis, to satisfy, first, those students who must walk out of the door looking for a job, we must do our very best to look at the long range picture.

For starters, and to give you something to argue about, I say let the two-year college student decide what he wants to do, train him to the best of his ability, and you have given him at least a good head start. I don't believe you can do a lot more until we get better coordinated in our planning and forecasting.

Every time you ask us what we want, it's difficult to think further than today. We look at what we have open right now. So we must stop thinking this way, even if right today, it's hard to get a job in an airline industry. In the future with proper study of our attrition rates and our retirement schedules, I think we can give educators better planning. We should do this in a year even while it is easy to get people for jobs.

I think personally, it will not be long before it is again going to be difficult to get people. In other words, we have to try harder to be more responsive to the vocational student on a "job now" basis and let the two-year graduate take more of a chance. At least that is the way I feel about it.

I said in the beginning I wanted to talk about the four-year college graduate with a special trade, similar to Southern Illinois' A&P. Sometime back in the good old days we inaugurated a college rotation program where he hired M.B.A.'s, B.A.'s, M.S.'s, B.S.'s, moved them around for a year in different groups and then put them on a job. Some of our M.B.A.'s have done real well, although many have left us. To throw in my largest personal complaint about MBA programs, they always train students to be presidents, so trying to get them to become interested in lower jobs is sometimes difficult, but that's beside the point. My real dream for our department was that we could get some four-year men with A&P license, put them on as mechanics and then rotate them around later. I hoped that maybe this was where some of our higher management would come from in the years ahead. This was a good dream while it lasted, but when we had to cut back in other areas, we also cut back on this. However, I have talked to one of the young men who is now assistant to our systems director of maintenance on what this schooling did for him. He does have a four-year college degree and an

A&P license. His words say it better than I do, so I want to quote them directly. "This degree with the license meant to me a career in the field that I find enjoyable, and that is aircraft maintenance. It gave me accelerated development of the skills necessary for advancement. My first dividend, having this degree was the opportunity to obtain a commission in the military, which in turn meant management administrative leadership experience, not to mention better pay and working conditions. My second dividend was getting a job with TWA. And the degree has provided a two-fold opportunity (1) the opportunity to increase my management skills and (2) to demonstrate my ability. By management skills I refer to the concept of thinking logically, orderly, to be able to reason out a problem, and understand the thinking behind the directive. It also means the ability to write letters, reports, and the other administrative skills necessary for my kind of work. It means having the know-how to work with people on a management level, and all of these skills require development. College provided me with many of these means, certainly many times faster than a person could learn on the floor. The license, first of all, represented technical knowledge and in an airline department responsible for aircraft maintenance, knowledge of aircraft and their systems is mandatory for most of the better positions. The degree alone in a non-technical field just wasn't enough."

I think this witnessing from this young man fairly well sums up what the dual training meant to him and has to many others. I want to close with this though as time is fleeting by.

While we have often been criticized for wanting to train our own people, what I think we are really saying is—we want to train them in our own way of doing business, on our own, perhaps, different machines and different aircrafts, but we certainly should look harder at a person who comes to us with an education, be it experience, vocational, two-year, four-year, versus the one whose background is too general. Even people with considerable aviation experience are given this same in-house training. So, let us try to get together more scientifically to develop a system of forecasting heads versus the calendar.

Let's all get together to advertise, put pressure on all employers to recognize the training, especially in vocational and technical schools, which is, in many ways, equivalent to a certain amount of experience, and stop this choking off process in demanding that some other company give the person the actual experience, which is what you say when you are demanding nothing but experience. Everyone has to start his experience somewhere. I say it can start in school. We have made much headway in changing our personnel people's attitude and that of supervisors to accept people who do not live up to our hidebound interviewing standards, but we could still use more help in understanding how much experience vocational schools give to a person, and again change some of our hiring practices. Let us always remember the central theme of this conference of investing in people.

Someone invested in us, and the least we can do is invest in others. Thank you very much.

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Ladies and gentlemen, I would first like to congratulate you, and other citizens of the State of Illinois, for having elected a man as your chief executive who has the courage and the vision to recognize the high priority which human resource development should be having throughout this country. I could wish that some of the current crop of presidential candidates had similar vision and courage. They suggest that in 1976 we might have an Ogilvie in Washington. But the fact is, that we have been profligate in this country in our use and development in both our human and our natural resources. We have had so much of both that we could afford to be careless, and we have been. We're beginning to see it in our natural resources. We face brown-outs and black-outs. We have a conflict between the developers of energy and the environmentalists, which seems to have confused the entire American public. We also seem to have a conflict between the, what shall I call them, the "1984" people, and the humanists in the field of education. We seem to think that we should go back, some people do, to the days before technology. We, seemingly, have failed to recognize that there is no going back. You can't "go back home." We can only find the means of resolving these conflicts through new technologies. Where the wrong technologies have developed and caused pollution, we must replace those technologies. And, similarly, in the field of human resource development, if we have failed to use our understanding of the learning process, we'd better institute it, and soon.

So I want to change the trend of this symposium by concentration on total human growth development and rejecting an implied, though not stated, isolation of training from education. They must be seen as a whole. The false security of some vocational educators must be exposed —for those who consider themselves apart from, instead of a part of, the total educational process. This isolation must stop. This is the message that I would bring to you in the business world and to you educators, too.

Let me preface my remarks by recognizing that there are some schools, and some school systems, and some communities that (1) are well organized and efficiently managed, (2) provide stimulating experiences appropriate to the aptitudes, the interests, and the abilities of their students, (3) have sufficient flexibility in their curriculum, their methodology, their staffing, their building space to adapt to the changing student populations, career opportunities and social conditions of their region and (4) employ continuous in-put information from their own evaluation processes and from business and professional reports on present and anticipated job opportunities so that the schools can provide wise guidance for their students and appropriate modifications of their

educational offerings. Later in my remarks I would like to note a couple of what I consider prime illustrations of this being done. However, at the present time, such schools and school systems are the exceptions, not the rule. But the concerted action of leaders as you gentlemen and ladies in business, in government, in labor, and in the profession, could make them the rule.

This symposium gives me an opportunity to project a thesis that I have long held—that our cultural potential in this country, and the manpower opportunities of our increasingly technological economy, have outrun our educational system and its processes. In other words, our schools are not developing our human resources for their inevitable future. And most of our children, as Dr. James S. Colman recently said, (this was in *Psychology Today*, February issue, 1972) that most of our children have outgrown the schools they are attending. What did he mean by that? He meant that our present educational system, our twelve grades, our segments of development, were invented in a time of great poverty of information. The school was a source of information. The action came out in the community, you went to work, you worked when you were ten or twelve. Now, with the advent of our tremendous mass communications process, our kids know more than the schools are ready to use. We have moved from a poverty of information to a plethora of information. At the same time we have moved away from work opportunities for youth in the community to almost complete inactivity. I could get a job when I was 12, and did. True, I worked in a shoe store, worked in a clothing store, I worked for a construction company, pouring concrete, all before I was out of high school. I couldn't do that today. Why? The child labor laws prevent it. Before I go further, let me state a few conclusions, lest there be no time later. Because I do want to get some of my conclusions in, assuming that my logic is accepted. First, I believe that President Nixon's recommendation should be enacted, requiring that the many agencies of the federal government, now dealing with disparate aspects of human development, be reorganized into a single department. In no other way can the duplication, the competition, the lack of articulation, which characterize these diverse federal programs be corrected. You may remember that President Johnson appointed a commission in the 60's, which included several cabinet members, incidentally, who tried to bring about such coordination and improvement of federal programs. They didn't even make a dent in the hard-shelled bureaucracy of the several agencies. I tried to follow this; I tried to get reports on it. I found eventually the commission just didn't meet any longer. In fact, the federal fragmentation of the human resource development problem increased and intensified through federal legislation in the 60's.

There are all kinds of contradictions in federal programs. Let me give you a couple of illustrations. When the NDEA was passed in 1958, I had great hopes for the improvement of guidance. Of course, we were on a great kick to get scientists and engineers, and I happened to represent the Chamber on the President's Commission on Scientists and Engineers. But we didn't get that type of guidance. What did we get? For millions, for hundreds of millions of dollars spent in workshops, we got guidance toward college. My old friend, Joe Bertoti, of General Electric, was so incensed about this that he kept GE financing four

workshops per summer to try to get the guidance counselors to understand their responsibility for knowing all of the job opportunities of their local economy. Yet, most guidance counselors still ignore their responsibility for the majority of the students who are not college bound, or shouldn't be, in terms of the old meaning of a college baccalaureate degree. Most young people are not going to be scholars or professional people; but the guidance programs of the NDEA only belatedly got around to a concept of guidance as the assistance for all kinds of students in understanding their potentials and their career alternatives—their choices based on their abilities, and who they are and what they could be—not just how to get to college. Let me give you a couple of other illustrations. OEO tried various projects, which have been reported to be imperfect, if not futile. Headstart got a bad name, as did the Job Corps. It really wasn't Headstart that was wrong, it was the rest of the school system, by and large. Learning started in Headstart; if it had been followed through in the total school system, if teachers and counselors in the elementary grades had been ready, Headstart might have been a huge success. I likewise concur with a recent *New York Times* editorial in rejecting the OEO's disbanding of their whole approach to performance contracting, because it wasn't given a fair chance. It wasn't thoroughly examined or tested. One year was not enough. What do I mean by that? I mean that some of the hidden consequences of some performance contracts have been of great value. For example, down in Texarkana, where they said it was a failure, on the contrary it proved to black parents that their children could learn; to white parents that being with black children didn't in any way interrupt their learning. In fact, it so convinced such parents that the school board, instead of being thrown out, was unanimously re-elected. It brought the community together. Whatever the validity of the testing process may have been in Texarkana, the fact remains that the project brought the community back together, as the performance contract in Gary has, in some respects. I think that some kind of performance contracting may be a necessary pressure to bring public schools to recognize their responsibility for developing all the community's human resource, instead of letting half of it, or at least a third of it, (and you still have a 30% dropout here in Illinois) be abandoned. And that's what it is: dropouts are an abandonment of youth.

A second generalization that I would like to make is that the U.S. Office of Education should (and I wish Syd Marland were here) long since have used some of his available research funds to contract with competent educational research organizations to develop entirely new models of public and private education—these models are to be developed on the assumption that the many legislative, administrative and pedagogical establishment barriers to providing more effective schools are changeable—that is, that educational experience and personnel who understand the methods, the equipments, the organization to provide such experiences, can be provided and will be appropriate to the needs of our age and the potential of our people, both young and old. How do we know that these things can be done? I seem to remember a war when we took over 12 million people, who were utterly unprepared for all of the jobs of winning a war, and made them into the greatest fighting force the world has ever known. I seem to remember that one man, who

later came to Chicago, incidentally, who moved up from a Lt. J.G. to a full Admiral and did so on the basis of the development of simulations of audio visual materials, of programming of learning, of all the training methods that the educators dragged down off of their research shelves in 1942 and put to work when they faced a kill or be killed proposition of developing human beings to win a war. This was done. It worked. We made electricians, and plumbers, and radiomen out of both men and women. I remember the Waves we had at Patuxent River where I happened to have been a personnel officer along with being an aviation radar officer in the Navy. Waves manned our flight tower and performed effectively in our test flights. I also remember some competent Wave mechanics—I did have quite a fight with the Wave Officer to get skirts taken off of them and pants put on them. All I had to do was bring the C.O. down one day to the hangar and show what the men were doing while these Wave mechanics in skirts were climbing around over a couple of airplanes. It soon caused a change in costume to take place. But the fact is, that the armed services have provided us with models of effective programmed learning in all the technical trades. People have asked me several times, why didn't you go back to education after you got out of the Navy? Principally because I couldn't find any place to use what I had learned in the Navy back in our school systems. I could, and did, find it in the business world. I spent eight months after the Navy experience in the American Council of Education writing up what should have been models of development that could be transferred to the public school system. We wrote ten books in the American Council of Education at that time. I wrote a book on Multisensory Aids to Learning. Nobody read it. Nobody read the other nine either.

Who developed the first programmed learning processes of real consequence after the armed services? Business did. The first good programming I saw came from California Bell Tel about 1950, where they definitely showed themselves how much more efficient it was to employ programmed learning. They even came close to computerizing their courses even though there weren't computers then as there are now. But, at least, Bell Tel did maximize the rate that individuals could move in learning how to be telephone installers and repairmen. They showed that it could be done more efficiently, in less time, at less cost, and greater help to the individual who was going to be a repairer and installer of telephones.

If federal programs can't be coordinated state governments could, and I think should, do this same thing, that is, they can reorganize their many agencies dealing with human resource development into a single coordinated agency. I was glad to hear last night from a representative of the Governor that you are at least getting on with this. Another of your Governor's very wise moves is to establish a commission on the schools, to get this task force going, among four task forces, to improve the management of schools.

Management is one place where business can help schools *now*. I just heard from one of our Chicago leaders that such a project is getting underway right now in the City of Chicago. It has been happening all over the country. I could name dozens of other cities in which Chambers of Commerce and other business and labor organizations are helping the schools improve the efficiency of management. But this is only a step in

the right direction. To improve the efficiency of management doesn't change the content or the methodology of instruction. In most states, as in the federal establishment, there are a whole group of reluctant dragons who don't want to do the surveys and make the changes that would modify our present obsolescence. Instead, they just want more money to do more of the same; presumably, they feel that will help them get by the crisis in our classrooms. Well, they're wrong. The dropouts from both our schools and our colleges demonstrate it. We're teaching a lot of kids to fail! The one thing some of the dropouts are learning is that they're no good. The mis-knowledge of self which comes from such educational processes is criminal. It's tragic, too. That's why I'm asking you to take a larger view, to get a broader perception of the human resource development processes of this country. What does this have to do with vocational education? Why, everything. Because at the present time, in many places, vocational education is just one of the patches on the crazy quilt of changes that has occurred in the last two decades. Do you realize that our school expenditures have increased more than a thousand per cent since World War II; yet the readiness of our people for changing job opportunities, and for family and community responsibility, haven't kept pace. What I am really urging you to consider is the need for a re-integration of the many types of educational experience which must enter into effective human growth and development, which should be continuing throughout life. Career exploration, planning, preparation, placement, whether for the trades, the store, the office, or the home, whether in business, government or profession, begin in early childhood. It has been accepted knowledge for decades, that attitudes and interests grow or wither most rapidly in these early years and that the rate of learning is highest in these early years. Why have we done nothing about it? I think it's crucial that preschool and grade school experience relate to the world of work and government, and the professions. Now, we know enough about the testing and identification of human aptitude and intelligence to be doing a great deal. I was just reading of the standardization of the new Wechsler intelligence test for four to six year olds, which goes right along with the Wisk; and of course, Binet has an early childhood test. This is just one part of a profile that should be gradually developing throughout the school years on every child; it should be made known to the parents and made known to the child because of the great need to know yourself. We hear particularly from low income, disadvantaged children that they don't know themselves. But the curse of it is they mis-know themselves. While they don't know themselves, they do know things about themselves that aren't true. This is deadly. Increasing self-understanding and exploring of the world around you are certainly the prerequisites to wise choices, whether of careers, of mates, or homes, or political leaders. So counseling and guidance of learning are the first essentials of teaching at all levels for the future, from pre-school to adults. Perhaps, the level that is least ready to accept that statement is the college level. Academic over-specialization and the segregation of the disciplines have no place, in my opinion, in general education. Good vocational or career teachers have known this for many years, but there aren't enough of them. Some versions of team teaching are bringing about such a re-integration of knowledge among academicians, and more importantly, among their

students. But, I still find very few science teachers who really understand how science came into being, the history of science, the economic scene in which science and discovery and invention took place or how the mathematical concepts to describe scientific phenomena were invented. Why, Leibniz and Newton discovered the calculus within a few months of each other, and quite independently, because they had to have exact mathematical ways of describing, and hence, of controlling the phenomena they were investigating. This depth of understanding of the totality of knowledge which happens in an integrated scene has separated into disciplines which are man's creation for the scholar's sake. For the general public and for general education and for the non-college-going student individual disciplines are often frustrating and futile, and it's hard to motivate average kids to learn them. This average student too frequently doesn't learn, and that's why we have dropouts. There are several major barriers to modernizing the educational scene which I have been sketching. Members of this audience could be instrumental in resolving them. First, perhaps the most serious obstacles are the protectors of the status-quo, established by the federal and state school laws and codes, along with innumerable court and administrative rulings. They add up to a network of inertia.

Why is the age for learning still 5 or 6 or 14 or 16 in our State Compulsory Education Laws? This is an obsolete concept. Learning begins early and continues forever. This idea that 5 or 6 or 14 or 16 is when learning takes place never was true and obviously isn't true today.

Why do our child labor laws still prevent effective cooperative education until the age 16, although I know the Labor Department relaxed this a little bit last year? Why are there minimum wage laws that prevent the employment of youths and the cooperative programs from getting underway in many places? Why are there union barriers when there is no reason for the unions to continue to have barriers to youthful work?

Why do most states still tie their support structure, that is their state aid in education, to these obsolete attendance laws, thus making it difficult or impossible for some communities to undertake early childhood education in one hand or remedial work-study programs for dropouts on the other hand?

Why is some X number of hours of education a sufficient but necessary college achievement to warrant a certificate to teach? Quite disregarding the question of whether prospective science, math, English or shop teacher is competent, but not over-specialized in science, math, English or shop, or the other question of the aptitude of these people for working with children and youth. Why are there no requirements in most states for teachers to have extensive experience with aids to learning, computerized instruction, evaluation techniques by which they can better increase the effectiveness of their own teaching? Why is there so little testing (I'm not talking about academic achievement testing, I'm talking about psychological testing) and career guidance of children in our elementary schools? Why are so many schools poorly managed, even though most school administrators are overspecialized in the managerial processes, often at the expense of their understanding of the learning process and their accountability for learning? We have a great deal of understanding of the in-put into our schools, but we have very little understanding of the out-put of our schools. Oh, yes, I can tell you how

many dollars are spent, how many machines are in the schools, how much laboratory equipment there is, what the pupil-teacher ratio is, what the space per pupil is; this is input, but output facts you don't have. Follow-up, you don't have. How many of you in this community know whether your schools ever go out and find out what their graduates or drop-outs are doing, or not doing, and why? One of my friends in Indiana became Chairman of the school board in his county. He challenged his school system to send follow-up questionnaires to the previous two years' graduates and drop-outs both, asking them, of all of their courses (the questionnaire listed all the courses they had taken), which courses had helped them (a) in their career and (b) in their home life. And, brother, did they get some tough answers! How would you feel if you were a science teacher in that school system and found that very few of these people said that their science work had really helped them in either their home or career pursuits? The same answer came through for foreign languages. Studies like this should be made and should bring about needed changes in curriculum, methodology, administration and the organization of a school system—including the vocational school system. Well, all these questions lead to a second major barrier, namely, the obsolesence of many college programs—the academicians of liberal arts colleges sometimes are hardly on speaking terms with the educationists in the college of education. Both groups are often guilty of the segregation of knowledge from the purposes and practical applications of knowledge in the world of work. Yet, that's what the kids want in this world now. They want a piece of the action. Knowledge is ancillary as Coleman says. It's action, and the knowledge and skill for the action will come through if you as a school person help young people get into the action. Elementary and secondary teachers (vocational teacher training is no exception) unfortunately, seldom receive such training. Hence, they are often ill-prepared then to deal with the non-scholar in our public schools. That's the majority of our youth. The needs, and aptitudes, and interests of these youth are seldom recognized or used to encourage purposeful, productive activity in the school in acquiring salable skills and the knowledge employed and needed for such skills. This failure of our schools is most evident in our inner cities, where cultural and economic disfranchisement has been and is being perpetuated by school and community experiences. Welfare homes, unemployment, crime, poor health, poor nutrition, poor schools are the vicious cycle of ghetto families. Their children rarely know themselves or the world they can help to build.

Now let me add that this condition faces more white children than black youth, even though it's more obvious and desperate among the latter. It shows up in such surveys as one in Cleveland where most ghetto children had not even seen Lake Erie. It shows up in surveys such as in Pittsburgh where these ghetto children had moved several times each year of their school life and had never been out of the ghetto. And, of course, it shows up in the increasing year-by-year lag of these children in their ability to read and write.

The expedients of the last decade by the business world in helping resolve these conditions point out revolutionary changes that must come about in public education. It was good that various industries, stores, banks, and other enterprises stepped in to help resolve such conditions

in Cleveland, in Detroit, in Rochester, in Atlanta, in Dallas, many other cities. I can give you illustrations by the dozen. For example, the G.E. plant in Cleveland became an opportunity vocational industrial center. In Rochester a department store built an annex just for the development of youth for distributive work in various occupations. A bank also put in special rooms where kids actually attend school to learn about bank jobs. Kodak and several other enterprises did the same thing.

In Dallas, the Chamber of Commerce really went to work to help establish a career vocational school. At the same time they created a task force just like the one they are instituting here in the state of Illinois to improve school management. The Superintendent of Schools in Dallas told me last year that in the first year after this task force of fifty top business men, who incidently gave a month, two months, of their time, that "we have improved our warehousing, purchasing, data processing, maintenance, records and personnel handling. These improvements in the business side of school administration saved a half million dollars in this first year. This is because of the assistance I got from business men on how to manage this hundred-fifty million dollar enterprise."

This business help often comes too late, as in Detroit, only after they had the riots; then Michigan Bell came in to help one high school, Chrysler assisted with another one and a department store (Hudson's) assisted another. But this is all "after the fact." Healing an ulcer does not correct the condition that caused it. The equipment, the staff, the guidance and training process which many business and professional enterprises have given to schools have not gotten to the basic causes, to the basic school conditions that need to be changed. It hasn't corrected the disillusionment that begins in childhood and continues through school, the failure to help children know their own potential, to know themselves. It hasn't helped grade school youth to relate their potentials to career opportunities; it doesn't help these younger kids to discover their need for, and their ability to, acquire knowledge and skills. This is what we must change.

Let me add that this problem should concern suburbia as well as the inner city. You are all aware of the high unemployment, crime, vandalism, shop lifting, the drug abuse, the illegitimate pregnancy among ghetto youth. But are you equally aware that in many of our suburbs such criminal tendencies among middle and upper class youth are showing up? In suburbia, some kids do for kicks the same things the poor kids are doing in the city for survival. Why? Because they are bored, they are disillusioned with materialism, with the "get an A" ladder climbing, which dominates even good schools of our suburbs and many of our colleges, too.

What does it add up to? It should reveal the irrelevancy of much school experience—irrelevant to the needs and hopes of young people, as well as to their aptitudes, which they either don't know or find no motivation to develop. It means that inner city schools must concentrate on developing their children's faith in themselves through understanding of themselves and thus build a determination to break free from their poverty cycle. It means that all schools, especially in suburbia, must respect youth's interest in better communities and a more just and peaceful world. School must help them discover what and how to contribute not only to economic but to social progress. It means that children

and youth must be "involved." They must participate in some of the purposing, in some of the planning, in some of the evaluation of school experiences. This is part of the follow-up that I've discussed. For this audience, I hope it means that you'll help your school systems initiate programs with career exploration and planning as well as learning and training experiences appropriate to the aspirations and attitudes of youth.

If you'll let me insert a note of congratulations to the Illinois Council, one of the things I've found (and I must admit, gentlemen, I didn't find too much in the annual reports of the council to be happy about) was a program initiating occupational orientation in your elementary schools. That's good, that's long overdue, because elementary teachers can be made aware of the problems we are discussing at this symposium. And perhaps that age group is that they are easier to work with in this area than some of the other subject matter taught in secondary schools, but such career guidance ought to be continuous all the way from the pre-school years throughout life.

For business men, the modernization of our schools means much more input, more continuous input. One of the gentlemen over here was saying "I'm ready" to make such an input. Fine. This new input includes ideas about equipments, about job analysis, about manpower needs; it may possibly require giving some staff some assistance in instruction in the training process. It means also that business and the professions must review some of their present personnel practices. Sex discrimination, race discrimination, ethnic and religious discrimination make career planning and development futile for minority groups or for the female majority. How many profiles I've seen for women who could have been tremendous lawyers, doctors, engineers or technicians, and what did they end up doing? Well, they end up in language or history or English. Why? There is a sex discrimination and there is cultural discrimination in employment. It just isn't quite feminine to work on an airplane or to do some plumbing, is it? The Russians didn't find it that way. When I was over in Russia I found women doing everything from medical work to construction work. Of course, they had twenty million men killed in World War II and had to use their women whether they wanted to or not, but they did it quite successfully and the women were quite effective administrators, doctors and tradesmen. American society desperately needs to improve its rate and quality of human capital formation and that is what I'm talking about. And it's going to hold increasingly the schools accountable for helping or failing to help develop career centers for occupational training. Business must play an expanding role in this development and it will if our elementary and secondary school recognize the priority which this objective of education deserves.

Finally let me give you a couple of illustrations. If public education doesn't take on this responsibility and soon, the business world is going to be forced to get into the act to a degree it doesn't really want to, but it's going to have to. Maybe there's going to be a voucher system, I don't know. Maybe there's going to be some means of combining work and study, as Coleman suggests, of making a radical reorganization that would modify work places to incorporate the young earlier. He suggests that older children would then be partly integrated into work activities with some time reserved for learning and some for productive work. But the separation between the two, the economic and the educational systems,

would disappear. A work place would also be an educational institution. This reorganization has tremendous application for adults as well. The old concept of full-time education up to a given age followed by full-time work would be completely replaced by a continuing mix of learning and doing throughout life. That's John Coleman. Perhaps the more immediate and better probability is the final illustration I'd like to use. Last year I came across a new approach to a vocational technical school. About two years ago there was both federal and state money to start a new type of school in five districts of Pennsylvania, near Ebensburg. They decided that the time had come to modernize their school system, not just their vocational system, their total school system. But they were going to do this through career orientation, career development, career planning, and finally, placement and evaluation. So the Admiral Peary area vocational technical school idea was born. Do you know what they first did? They first went out and got a computer. Why? Because they recognized if they were going to have an individualized development of people they had to know all about the people and they had to know all about the opportunities for people. So the second thing they did was to make a complete job survey. This gentleman over here talked about wanting to get information. They went to every man like him within a hundred miles of Ebensburg, in both large and small enterprises and said tell us about the jobs you now have, about the jobs you anticipate at all levels. Tell us about the degrees of proficiency required to help us get good advisory people to come in to help us define the clusters, the curricular clusters we are going to build. Help us develop the units and foresee the placement of people. Help us break down into modules of learning. Help us see the modules that are necessary just for the operative people, the addition modules that are necessary for the skilled people, and the additional modules that are necessary for the technicians who are analytical and diagnostic. As the program developed, they came up with twenty clusters out of their first survey in six basic areas. In agricultural careers there were two different clusters. There were two automotive careers. In the building construction careers there were four—in carpentry, electrician, masonry, plumbing and pipefitting. In metal and material careers there were three—in machining, modern methods of mining and welding. In service careers there were five—in cosmetology, health services, marketing technology, personal service and transportation and quantity food services. In careers in technologies there were four—in electronics, engineering-related technology, mechanical drafting design technology and scientific data processing. Of course, these twenty clusters are only a beginning, subject to modification. Evaluation data that will be fed into the computer will cause the curricula to be continuously modified. Where training isn't effective, they will find out why. For the school, for the student or for the employer the program will be a cooperative venture. And there's going to be individualized instruction. This computer will provide a massive data collection of where the students are and what they do, and what they achieve at what rate and how well.

The overall goal then in Ebensburg is a truly effective total modernization. This begins down in the grade school. They've already picked out in the elementary schools of these five districts the teacher best prepared psychologically, mentally, attitudinally, to be the guides of these children.

To make the curricula of the new school reflect the world of work required, they bring the people in who do such work. These advisors have already identified the behavior objectives in each of the several tasks of various jobs. They had a meeting just last week of about sixty of these advisory people in the twenty different curricular clusters, and asked them to describe how people do certain things. What are the behavioral objectives that should be sought? Describe what an auto mechanic does or what an electrician does. These advisors did it. The administrators concluded that if these people who are workmen, i.e., carpenters, bricklayers, etc., can describe such objectives, surely teachers can understand what they're talking about!

Much of this instruction is going to be programmed where ever it's feasible and computer assisted instruction used, because it's individualized.

The man who is in charge of the new Ebensburg school has invented an acronym for the program. He calls it *TIME*--for *T*emporary *I*ndividualized *M*oduler *E*ducation. In other words, these students can move as fast as they are able to. They will be brought in for half days from all of the high schools of these five districts. The orientation will start down in their grade schools and there will be continuous articulation, continuous evolution based on continuous return evaluation from employers both during on the job training and after leaving school. Hence, they will constantly modify, improve, or perhaps expand, or change completely some of their curricula. Well, that's just a brief description of one type of development in which there is full use of the computer. I see no possible way of doing this tremendous amount of record keeping and getting printouts as fast as you need them to find out what the alternatives for an individual child, boy or girl, in the area of work they need without a computer. This is going to involve some twenty-five hundred out of the twenty-five thousand jobs in the DOT (the Directory of Occupational Training). The point is that this is going to start in Ebensburg next fall, but could start anywhere. They've already had inquiries from twenty different states and from many junior colleges and from many community colleges, as well as some other vocational technical outfits. It gives operational meaning to my earlier plea for reorienting and reintegrating knowledge to make it useful and desirable for the majority of our youth, most of whom do not find knowledge useful just for its own sake. This school is for students who want knowledge that is useful in terms of human problems, economic and social progress, community progress, and the welfare of society.

MR. MARVIN J. FELDMAN
President
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New York

I overheard a conversation between a couple of middle-aged businessmen the other day.

"Confused," one of them was saying, "of course I'm confused. I have a son at Vassar and a daughter at Yale."

There is a lot of confusion about education in America today and I want to speak to some of the sources of that confusion. We are stumbling at a time when we need most to be sure-footed.

I want at the outset, if you will excuse the expression, "to make one thing perfectly clear." I am a proud member of what our critics call the educational establishment. I hope I shall be a member of that establishment for the rest of my life.

At the same time, I think American education must change—and change radically. I am, as you will see, an advocate of change, but change within the system. I am a kind of Aristotelian revolutionary. And I find myself talking much more frankly and critically to those I consider fellow members of the establishment than I do to those I consider outsiders.

So I hope you will take what I say as I intend it—as an expression of respect and brotherhood. I feel I am among friends, and because of that, I feel I can say exactly what I think.

I believe that American education is just now in quite serious trouble, and that the consequences for the nation are grave indeed.

Let me provide some context.

We began the Sixties hopefully. We were preoccupied with problems that now seem innocent indeed. Can you imagine a "guns or butter" debate in the Senate today? We hardly noticed then that we were at war.

Then came a time of trauma. Three great and beloved leaders were murdered in our midst. Our cities were torn by riots. And more and more Americans came to think our war was hopeless and unholy.

Our famous American morale, suddenly, was shattered. We were fearful and demoralized. Thousands of our young people "freaked out" in one way or another, bearing witness, in their fashion, that there were no longer any values that meant anything.

Our once proud nation became suddenly ashamed. A nation of people known for neighborliness began to double-lock their doors against each other at night.

There was everywhere distrust and despair.

Now, almost suddenly, things seem quiet for a moment. The tone of our rhetoric is somewhat subdued. We see our young people abandoning the barricades and enrolling in law schools, determined still to fight, but to fight within the system with writs as their weapons. We seem to face a Presidential campaign that promises to produce more candidates than issues.

But I think these symptoms are very superficial and very deceptive. I have been haunted for about a year by a gripping and chilling study of the mood of America called *Hopes and Fears of the American People.* It was conceived and constructed by Albert Cantril and Charles Roll and conducted by the Gallup organization.

For what is probably the first time since the Civil War, people feel we are losing ground as a society. And, alarmingly, they believe things will get worse. Americans in large, growing numbers are losing confidence in our society and they have little hope for the future.

Nearly half the people see the tensions and dimensions in America becoming so serious that they expect "a real breakdown in this country." While they feel fairly comfortable in personal terms, they are deeply alarmed about problems that require social solutions: crime, drug addiction, pollution. They are doubtful that we can find answers that work. In other words, millions of Americans are beginning to wonder whether our society will go on working. America is failing as a human community.

Americans are not disinterested. They are discouraged, disheartened and disillusioned.

The message is very clear. Our institutions must change if we are to survive as a workable society.

Here is an often-quoted mythical airplane announcement composed by an unknown author:

> Good afternoon, ladies and gentlemen. This is your Captain speaking. We are flying at an altitude of 35,000 feet. I have two pieces of news to report, one good and one bad. The bad news is that we are lost. The good news is that we are making excellent time.

I might paraphrase that announcement as follows:

> I have two pieces of news to report to you about the state of education in America, one good and one bad. The good news is that we are making excellent time. We have built in this country the most varied and elaborate and expensive educational machinery in the history of the world. The bad news is that we are lost. We don't know where we are going. There is growing evidence that we are training the wrong people for the wrong things at the wrong time. There is hardly any correlation between the pattern of our national investment in education and the changing needs of life and the radically changing requirements of the world of work.

Let me remind you of some of the consequences. I need go no further for evidence than an article in the *Wall Street Journal* a few weeks ago. The right-hand, front-page feature was headlined "Glum Grads." The lead was the story of one Jeffrey Leavitt. Jeffrey, a college graduate, had spent 16 years training to be a teacher. After over 100 job applications were rejected, in desperation he took a job as a garbage collector.

Jeff Leavitt is, I assure you, not a special case. Thousands upon thousands of young Americans have been expensively trained for work that isn't there.

No one knows for certain how many of last year's college graduates are still unemployed. But the *Journal* reported that 500 of last June's graduates from Michigan State were still unemployed, leading their placement director to say: "We simply have an overabundance of college graduates in relation to society's needs."

In 1958, the experts were saying that every engineering graduate would get four solid job offers. Now, in retrospect, the best thing an engineering student in the Sixties could have done was flunk out.

The fundamental message is clear. There is an increasing disparity between what society needs and what the educational establishment is producing. And it cannot be written off as a short-term consequence of the recession, or of shifts in the pattern of federal spending.

I usually object to our labeling every emerging national problem as a "crisis," and the consequent construction of national policy in a perpetual atmosphere of hysterical urgency. But I believe this problem has already reached critical proportions.

I think the basic reason for the galloping irrelevance of the American educational establishment has not been clearly perceived and articulated. Industry, still the principal source of job opportunities, is changing very, very rapidly. Education is not. There is constant talk of change. The press is full of announcements of promising innovations in teaching technology. There is thus created an illusion of change in a sector of society that is painfully slow to adopt change.

The principal illustrations of this regrettable reality are familiar to all of you. The summer recess, which is only beginning to disappear, is a holdover from the distant day when, as a primarily agricultural society, we needed the young people to help with the harvest.

Or you can go further back. The lecture method, absolutely necessary before the development of movable type, is now logically obsolete. But it is still the basic method of information transfer in most of our educational institutions.

Is it much of an exaggeration to say that industry absorbs more change in a year than education absorbs in a generation? I don't think so.

There is, I think, a neglected reason for this.

Industry accepts change, not as a matter of choice, but as a matter of absolute necessity. I don't think for a minute that industry is magically exempt from that stubborn and universal human tendency to resist change. Industry probably fights change as desperately as the rest of us. The difference is that industry usually loses the fight.

The inexorable competitive pressure of a free economy forces continuous innovation and its prompt, universal imitation. The changes American industry has absorbed in my lifetime are absolutely staggering. And I fully expect to see as much change in the next ten years as I have seen in the last thirty.

Industry cannot long persist in a mal-investment of resources. I was reading a *Business Week* feature a few weeks ago which labeled 1971 "The Year of the Big Write-Off." Billions of dollars worth of investment in a wide variety of fields were written off as mistakes. But 1971 was unusual only in the dramatic size of certain write-offs. Business "writes off" sour investments constantly.

When have you heard of education "writing off" a bad investment?

The American education establishment is uniquely insulated from change. Our institutions are, for the most part, deliberately exempt from any market discipline. There are some good logical and historical reasons for this, but they do not modify the consequence. American industry, which is absorbing change at an accelerating rate, and whose manpower needs are changing apace, is fed or supplied by a set of institutions that

are largely blind to the need for change and immune to the necessity for change.

There are no real write-offs. As a result, there are persistent, self-perpetuating mal-investments which are astounding in their magnitude and alarming in their consequences.

If the education industry were suddenly subjected to market discipline, it would be bankrupt in a week. We have simply not used our exemption from economic discipline responsibly.

There is, across the board, a radically negative correlation between enrollments and probable job opportunities.

Let me cite two or three figures. For every ten students who were in the fifth grade in 1959, about two earned a four-year degree last year. Yet the federal government spends $14 for higher education for every dollar it spends for vocational education. We are spending $4 for remedial manpower programs for every dollar we spend for preventive vocational programs.

There is still another familiar source of distortion.

We are locked into an archaic mythology that a four-year liberal arts education is the most useful and desirable, that all the alternatives are somehow "second best." We spend an exorbitantly disproportionate amount of our energy to support that myth, largely, I think, simply because most of the decision-makers in education were educated in that mode, and partly because of the silent support of industry.

Our reverence for "liberal arts" is rooted in superstition. I head what we label a technical or vocational college. But I find it is in no sense inferior or illiberal. It is, in fact, quite the opposite.

Our graduates create the options that make our society civilized. Without them, our life would be ugly, empty, and drab.

Civilized man is first of all an artisan. He makes things, shapes them, converts them, and puts them to use in a blinding variety of ways. Artisans extend the range of choice, and in doing so, permit men to become more fully human.

So the artisan is essential to the exercise of freedom. Free choice means little if there are no choices. It means degradation if the alternatives are hopeless or barbaric or uninspiring.

Without artisans, the concept of liberal arts is sterile and vapid. We are often told that liberal arts serve to liberate the artisan from the necessary narrowness of his special skill. But it is also true that the liberal arts need the nourishment of practical expression, and thus the practical arts are the basis of liberal values.

The truth is that artisanship and the liberal arts must everywhere reinforce each other. My institution's vitality comes from its clear recognition that the liberation of people from degrading concerns is expressed through things and tools and not apart from them. The way man uses things is a moral and ethical statement, not just a practical and aesthetic one.

Yet, as a nation, we are every year sacrificing thousands of young people on the altar of our doubtful and exclusive obsession with so-called "liberal arts."

But these are all simply special cases of the general case I suggested at the beginning, the growing relevance gap between the educational establishment and the changing needs of the society it serves.

Returning to the aircraft analogy for a moment, I don't think we need to be lost. No less a navigator than the U.S. Commissioner of Education, Sidney P. Marland, Jr., has given us an unmistakable sense of direction.

About a year ago, Commissioner Marland made an audacious appeal for a new sense of purpose in American education. He proposed that we re-order our whole educational effort around a new concept which he chose to call "career education."

The Commissioner said:

> Education's most serious failing is its self-induced voluntary fragmentation. The strong tendency of education's several parts to separate from one another, to divide the enterprise against itself . . .
>
> I propose that the universal goal of American education, starting now, be this: that every young person completing our school program at grade 12 be ready to enter higher education or to enter useful and rewarding employment . . .
>
> The fundamental concept of career education is that all educational experiences—curriculum, instruction, and counseling—should be geared to preparation for economic independence, personal fulfillment, and an appreciation for the dignity of work . . .

Some vocational educators have been understandably concerned about the Commissioner's meaning and hesitant to support his program. They have been fearful, I think, the program might, in practice, over-emphasize career awareness and neglect skill development. But I find myself in full agreement with Commissioner Marland's proposal as I understand it.

I believe that our present compartmentalized system should be promptly converted into a fully integrated system of career education. And I believe this ambition deserves the nation's full and sustained support.

The Commissioner' appeal has, I think, been widely misconstrued, and thus its far-reaching nature has been misunderstood. "Career education" is *not* simply a new name for what we now call "vocational education." The Commissioner is *not* saying that our concept of vocational education should be somewhat enlarged and the enlarged concept called "career education." Nor is he saying that new programs in something called "career education" are to be developed at the cost of vocational education.

He is saying something much different and much more fundamental.

He is saying that the old distinctions which have frequently crippled our educational effort should be forever laid aside and a new unity of purpose be expressed by a new universal term: "career education."

Right now we have a bewildering variety of designations within the educational system, but the principal ones are these:

—college preparatory education
—vocational education
—general education

I believe that these terms have come to suggest choices which need not be made, distinctions which have no meaning, divisions in what is really indivisible, and conflicts where none need exist.

Our thought and our practice about education should be last integrated. The result of this integration should be called "career education."

I am not appealing for "separate but equal" attention to vocational education in the overall system. I believe rather that career education is

a *universal* necessity and requires the integrated effort of *all* our educational resources.

In one sense, career education is simply an overdue affirmation of the need for purposeful relevant education. But its implementation will require far-reaching changes in what we teach, how we teach, and how we organize to teach.

There will be many valid differences of opinion about exactly how this integration is to be achieved. But these must not be allowed to thwart or overwhelm or distort the basic ambition. We must never for a moment forget that we are miseducating at least half our young people.

We should all be glad to leave behind these tired distinctions and their ruinous consequences. They belong only to the past.

It would be most presumptuous for me to prescribe exactly how the program should be implemented. But I am ready to suggest certain principles to guide and govern its implementation:

1) Career education should start early.
2) Career education should emphasize real work experience.
3) Career education should become truly universal. It should involve *all* students, *all* faculty, *all* aspects of the curriculum.
4) Career education should educate for versatility; it should seek to maximize options at all levels.
5) Career education should reach outside the school, and involve parents and industry in the educational process more deeply than they have ever been involved before.
6) Career education should acknowledge the immediate need for new vocational programs.
7) Career education should blend self-assessment, basic education, and experience into sensible preparation for a balanced life.
8) Career education should recognize the growing importance of "psychic income" in motivating young people.

But what we most need now is *action*. The Commissioner has provided a solid sense of direction. We need a united, cohesive, effort to make career education a universal reality. And we need it now.

So we are not lost because we lack a sense of direction.

Let me recall, in closing, a familiar story.

A drummer approaches a farmer in the field to sell him a set of books on better farming. "Shucks," said the farmer, "I ain't farming near as well as I know how to already."

We aren't educating nearly as well as we know how to already.

That's the problem. How do we change? How do we find the controls so we can begin to change course?

I am frankly getting tired of the endless talk of change. I am tired of all the studies that simply re-state the need for change. I am getting tired of exhortations to change. I am even getting a little tired of my own speeches beseeching my colleagues to change.

We must stop talking about change and start to change.

We must come to understand the process which permits us all to resist the kinds of changes we all know are absolutely essential.

We must somehow repeal irrelevance in American education. I invite your participation in that urgent enterprise.

Thank you for letting me be with you.

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As I begin my informal presentation to you today, I want first of all to commend the Illinois Advisory Council and the Governor's office, Scott Randolph, the Chairman, and William Nagel for convening this conference. I am pleased to be here with my friends and colleagues, Marvin Feldman and Jerry Dobrovolny of the National Advisory Council on Vocational Education, and Sherwood Dees, the State Director of Vocational Education, with whom I've been discussing some of the latest trends on the Federal level and what the State Directors of Vocational Education can do to help implement national priorities. I am personally very optimistic about the United States of America as well as about American education. It's the greatest country in the world, and it has the best educational system. But it requires the work of all segments of society as well. In my position as Associate Commissioner for the Bureau of Adult, Vocational and Technical Education, I am heading a bureau responsible for providing national leadership for the Office of Education for adult education, vocational and technical education, and manpower development and training as it applies to institutional manpower development training under the funds appropriated to the Department of Labor.

I would just like to share briefly with you the goals established by the Office of Education for the current fiscal year. We hope to work with regional, State and local agencies to implement these in order to improve American education. These goals include the improvement of management of education, the improvement of the education of the disadvantaged, the improvement of the education of the handicapped, the elimination of racial isolation, and career education. These are the five major goals. The Bureau of Adult, Vocational and Technical Education of course has expanded on these goals as they relate to our programs. And since this is primarily a conference on vocational education, I'd like to emphasize that we've spent a good deal of time during the last seven months studying very carefully the function and structure of our Federal division of vocational education and how it can best serve the people. As Marv Feldman said, "You have to get change down to the local level." The change in American education has to come about in the classroom. We're trying to find ways in which the Office of Education can help to develop national priorities by working with the State and local agencies to improve education. We are impressed by the way the State of Illinois is developing the Career Education concept through the leadership of vocational educators. Illinois has promoted a total Career Education program from kindergarten through adulthood since 1969. You started a program in which more students in your elementary schools are involved in occupational awareness programs than in any other State in the nation. You have started a unique evaluation program in which representatives of business, industry and labor are evaluating vocational

and technical education programs. You have developed innovative research and exemplary programs in an attempt to change the elementary school curriculum and developed computerized vocational information systems at Willowbrook High School and DuPage Community College. These particular projects are being carefully watched at the national level because of the very great importance of improving vocational education information, occupational information, and vocational guidance. You've also pioneered in the field of consumer education. Many States are now studying the effects of Illinois' mandated consumer education program to see how it has affected educational change. And last but not least, your outstanding State universities, all of which have strong departments of vocational teacher education, are performing excellently.

I noticed that several of your speakers in reviewing the summaries of their presentations pointed out the need for greater vocational education, particularly for the disadvantaged, and improvement of manpower training and placement. The National Advisory Council made a most important statement about this in its first annual report. I'm sure Jerry Dobrovolny has repeated this to you on several occasions. Although we do need to continue preventive education programs to recapture the school failures, the Federal government has to place much more emphasis on vocational education to eliminate the tremendous number of unemployed young people who need remedial academic and occupational education.

This audience represents an impressive cross-section of your State's and the nation's top leaders in education, in business, and in industry, and in organized labor. Each of you is a recognized leader in his field. That is why you were invited to participate today in this Governor's symposium. And that is why education needs your special insight, your breadth of experience, your understanding of the problems that confront both education and the larger society, and your proposals to get at some of these problems. I am sure we agree that much of what is wrong with our society, and I don't discount all the things that are right about it, has to do with the people who did not get adequate career training early enough and substantially to find their way into productive and rewarding fields of endeavor. Despite our concerted efforts in recent years to make education more relevant for the children and young people in our school and colleges, the record is still not very encouraging either in terms of human resources or financial investment.

For example: First, there is an increasing segregation between students and the world of work because they feel they are unneeded by our technological society.

Second, about one-third of all students pass through our high schools via what we call the "general education curriculum," a type of education which leads neither to saleable skills nor to preparation for a baccalaureate program.

Third, there is an undesirable and counter-productive separation of vocational education, general education, and academic curricula in our high schools with the result that those in the vocational curriculum are often viewed as low status individuals while those in academic curriculum emerge with little contact, preparation toward, or qualification for the world of work.

Fourth, because of the widely held view that a degree is the only kind

of respectable occupational preparation in our society, many students choose academic preparation. And this is often forced upon them by indulging parents who insist that they have to prepare for college so that they can do better than the parents did. However, a significant number of these who were forced into academic curriculums do not complete college and the numbers who do are increasingly out of proportion to the occupational opportunities available. In a free society no system can guarantee an exact matching of individual needs and educational options, nor should a system purport to eliminate those who drop out. Nevertheless, the magnitude of these types of discontinuities represent a major problem.

Fifth, the vocational offerings in our high schools and those students who elect them are still some times relegated to second class status. As important and relevant as vocational education is in our modern industrialized society, it often has lower status than academic preparation and therefore does not constitute a real option for many students.

Sixth, our present system is too inflexible. It often results in premature tracking and fails to offer individuals the option of changing directions during their years of preparation or of obtaining new training and shifting occupations later in life.

Seventh, many students have little formal contact with or preparation for the world of work during their elementary and secondary years.

In addition, let me share with you some statistics compiled by the National Center for Educational Statistics, some statistics I'm sure that all of you are familiar with now because these have been published in several national journals and have been repeated in one hundred major speeches on career education. For example, in the 1970–71 school year: 850,000 young people dropped out of our elementary and secondary schools. Assume that on the average they left at the end of the tenth grade. At $8,000 per child for schooling that began in kindergarten or first grade, this represents an outlay of over seven billion dollars.

750,000 young people graduated from the high school general curriculum that has traditionally been the dumping ground for students who do not elect vocational training or plan to go to college. At $12,000 per student, the total cost to the nation ran about $9 billion.

Another 850,000 young people entered college but left without a degree or completion of an occupational program. Assume that on the average they left at the end of the first year. These young people added $12 billion to costs.

If we add up the money we've spent on these 2.5 million young people, it represents more than a third of the nation's $85 billion expenditure on education last year. What we can never measure are the personal losses of these young people—their frustrations, their shattered hopes and dreams. Nor can we calculate the contributions that they might have made to our national vitality and progress had they had a more viable type of curriculum more suited to their needs, their individual abilities, and their own aspirations.

Who are these youngsters? What happens to them? A recent Department of Labor study, *U.S. Manpower in the 1970's,* not only looks ahead but recaps the labor picture in the 1960's. In terms of our social and economical progress, some lines on the charts and graphs have moved in the wrong direction in the 1960's or at best, failed to move at all. For

example: teenage unemployment was more than 12% in every year of the decade and the rate for teenagers of Black and other minority races was double that, running between 24% and 30%.

Most significantly the gap between youth and adult employment rates widened. At the beginning of the decade, unemployment among the 16–19 year age group was three times greater than for adults 25 or over. By 1969, over five times more teenagers were out of work than adults.

Projection shows that one hundred million Americans will be working or seeking work by 1980. That's fifteen million more people, mostly young, who will have to be accommodated in the labor force by 1980 than we had in 1970. If 2.5 million youngsters are now leaving our schools and colleges each year without adequate preparation, how many of these fifteen million are apt to be unprepared for the demands of the 1980 labor market.

It is clear then that Career Education is an idea whose time has come. Until we bring career awareness down into the elementary grades,—until we give youngsters the desire and the motivation to aim for a career that excites them,—until we prepare them to leave high school with a marketable skill or to complete work in a college or technical institute or area vocational technical school with a more advanced skill,—until we key all these activities to the labor market, as it exists currently or will exist when they are ready to enter it,—until Career Education becomes an integral part of the educational system, we will continue to short change both our students and our society.

Career Education is an evolving concept. We in the Office of Education welcome the input of business and organized labor, lay citizens and civil leaders from all segments of our society. We welcome your comments about this concept and want to know how you feel about it. We presently see Career Education evolving on five levels which are not distinct and are often overlapping. The first is the level of career awareness from kindergarten through the sixth grade where each young person would have an opportunity as part of his elementary classroom experience to learn about the environment, the world of work, and technology. The second level is occupational information and career exploration ranging from grades seven through nine. Here, every young person, rich or poor, urban or rural, would have an opportunity to explore the world of work in a systematic manner hopefully under the direction of teachers representing vocational guidance counselors. The third level is job placement and specialized Career Education extending from the tenth through the twelfth or fourteenth year of schooling. Here we hope that at least 80% of the young people will leave high school with some kind of saleable skill. They could go to an employer and say I can do something. I can type 80 words a minute; I can take shorthand; I can weld; I can run a machine; I can disassemble an engine and put it back together. The schools of America have done a wonderful job in placing young people in jobs, part-time, full time, or following them up to see what happens to them. The fourth is specific occupational preparation at the post-secondary level. Our country has more than 1,100 community colleges, about 1,500 area vocational technical schools, more than 200 colleges, now 4 year colleges are offering 1–2 year programs beyond the high school. There are also several thousand privately owned business and technical schools in the country. And the fifth and final level is adult

and continuing education. A recent study written by one of the outstanding economists at the Upjohn Institute, pointed out that if this nation had a solid adult education program that emphasized occupational preparation and retraining for all adults who need it, we would not have 1 and ½ million young Black people unemployed in the inner cities of America. We could reduce that figure down to ¼ million if we had the kind of Career Education programs in our public schools that we need. We've made a major effort through manpower development training. We're working very closely with the Department of Labor to improve that program; but we've got to make the schools responsible for occupational education as well as academic education for which they've been traditionally responsible. With the several changes of careers many adults face due to technological advances, with increased numbers of hours that people will have for recreation now and in the immediate future, we need much greater emphasis on Career Education and career guidance and counseling for adults.

The Career Education concept has acquired some impressive endorsements in recent months. President Nixon called for a new emphasis on career education in his State of the Union message to Congress in January, saying that: "There is no more disconcerting waste than the waste of human potential. And there is no better investment than an investment in human fulfillment. Career Education can help make education and training more meaningful for the student, more rewarding for the teachers, and more available for the adult, more relevant for the disadvantaged, and more productive for our country." The Chief State School Officers, the U.S. Chamber of Commerce, the National Association of Manufacturers, the National Manpower Institute, and many other organizations have endorsed this evolving concept and have urged educators to support it. The National Association of State Directors of Vocational Education was one of the first groups to endorse Career Education. They pointed out that while Career Education is similar to vocational education, there is a fundamental distinction. For while vocational education is targeted at producing specific job skills at the high school level and up to but not including the baccalaureate level, Career Education embraces occupations and professions and can include individuals of all ages whether in or out of school.

Vocational educators can take satisfaction however, from the fact that the concept of Career Education derives its heart and energy from the efforts so carefully begun by the vocational and technical teachers of America. In fact, in an official White House proclamation for Vocational Education week, February 13–19, 1972, President Nixon also said that: "Owing much to the efforts of vocational educators we are now on the threshold of a new concept of education which can make school both more interesting to the student and more relevant to him and his society. This concept, Career Education is based on the principle that a complete and meaningful education should include the opportunity to learn about the world of work." This conference and your theme of investing in people reinforces the President's concern.

The President also made the following important statements about our manpower programs in his State of the Union message. He said: "Our trillion dollar economy rests in the final analysis on our 88 million member labor force. How well that labor force is used today, how well that

force is prepared for tomorrow, these are the central questions for our country. This means doing all we can to open new education and employment opportunities for members of minority groups. It means a stronger effort to help the veterans find useful and satisfying work and to tap the enormous talents of the elderly. It means helping women in whatever role they choose to realize their full potential. It also means caring for the unemployed, sustaining them, retraining them, and helping them to find new employment." The President continued, "This administration has grappled directly with these assignments. We began by completely revamping the manpower administration in the Department of Labor. We've expanded our manpower programs to a record level. We proposed and the Congress enacted a massive reform of unemployment insurance adding one million workers to the system and expanding the size and the ration of benefits. We instituted the job bank to match jobs with available workers. The efforts of the National Alliance of Businessmen to train and hire the hard-core unemployed were given a new nationwide focus. The organization has also joined with our Jobs for Veterans program in finding employment for returning servicemen. We have worked to open more jobs for women. Through the Philadelphia plan and other actions, we've expanded with equal rights and opportunities in employment for members of minority groups. Summer jobs for disadvantaged youths were up by one-third last summer." And on July the twelfth of last year the President signed the Emergency Employment Act providing more than 130,000 additional jobs in the public sector.

There are also, of course, many instances of support and successful cooperation by business and industry, some initiated by educators, others by business and industry leaders. We are just about ready to complete a series of sixteen regional conferences on Career Education which were sponsored by the Office of Education through the Maryland State Department of Education, the National Academy of School Executives, and Olympus Research. The purpose of these conferences is to bring leaders from business, industry, and education together and to ask the conferees at these regional meetings to go back to their States and convene State conferences like the one here today.

The Bureau of Adult, Vocational and Technical Education has participated in activities of this kind at the national level and has encouraged them at the State and local levels. Your State Director of Vocational Education, along with the State Director of Vocational Education in Missouri, has been involved with the St. Louis regional and industrial development preparation in mounting a greater St. Louis program to improve the image of vocational education. I have visited the project on two occasions. More than three hundred leaders of business, industry, and labor are working with the St. Louis Regional and Industrial Development Corporation as a group of speakers and as more or less missionaries on behalf of vocational education. They have shown a film which they developed at their own expense. They've made speeches before church groups, civic groups, and social groups throughout the greater St. Louis area in an attempt to convince parents and youth alike that vocational education is a good alternative for them to choose. I would urge you in Illinois to look at that project. We want to assist the major cities of America in replicating that project because we think it has great potential.

Another step that we have taken in the Bureau to find ways to work better with business and industry and organized labor is to invite to our office a person who has spent forty-two years of his career in the highly industrial State of New Jersey. This gentleman, a post-chairman of the New Jersey Advisory Council on Vocational Education, filed a report with Commissioner Marland last week on ways that he felt our Bureau could better improve our relationships with business and industry and organized labor. We're going to look at those recommendations very carefully and I want to share a few of them with you. But first, I want to quote from a report of the U.S. Chamber of Commerce. In its quarterly business report on urban affairs the U.S. Chamber of Commerce noted that: "Commissioner Marland has already done more to involve the business community than any previous education commissioner and that Career Education has created an unprecedented need for business participation." That's one quote. Let me give you another short one. "The role of business is still unclear. The Office of Education has yet no specific plan for the involvement of business and industry in Career Education program planning. And we are trying to do something about that." Another quotation. "Business participation is critical, everyone agrees that if the Federal effort is to have real, substantiated, implementation prospects, relating the training to existing and developing career opportunities in working with business and industry is essential." Another important quote that I think the educators in this group should listen to very carefully reads as follows: "Commissioner Marland's concern for closer cooperation with business and industry has not yet reached all levels of education. Educators are often suspicious of businessmen or ill-equipped to involve the business sector effectively in programs and planning." And that's one of the strong things about State advisory councils I believe. And one last quote: "Commissioner Marland has encouraged the creation of industry, education and labor coordinators in each of the Offices of Education, Regional Directors Offices, and each of the State Education Agencies." States and several regional offices have moved in this direction. Commissioner Marland has named Mr. Louis Mandez as Federal coordinator to stimulate State and local efforts.

Now here are some of the recommendations which we have already begun to implement. We have received these recommendations from a person loaned to us at no charge to the government from the New Jersey Bell Telephone Company. These are some of the things he recommended. We hope to establish a continuing formal program through our Bureau for the exchange of experiences in plans with business, labor and industry. We are going to solicit actively the opinion of appropriate segments of business, industry and labor on program proposals and public and private agencies where such opinions would be helpful to the review and decision making process of the Office of Education. There's already Federal legislation which permits the exchange of State and Federal employees, and we are trying to work out a loan arrangement for an exchange program with business and industry employees. We hope to solicit the help of business, industry, and labor in establishing training courses to prepare older employees for meaningful and practical employment after retirement. We plan to provide under the formal Executive loan program we've established for the meaningful utilization of offers from business and industry including adequate follow-up on these offers

to be sure that the maximum benefits to education and maximum satisfaction to the helping organization. We plan to issue periodically bulletins of latest developments and trends in Adult, Vocational and Technical and Career Education to business, industry and labor people through their national organizations. We plan to arrange for a periodic invitational conference, at least annually, with leaders of business, industry and labor who are knowledgeable in and concerned about Adult, Vocational, Technical and Career Education. And let me also quote from the Chamber of Commerce report on what businessmen can do. "Businessmen can do more than you think. As a start the businessman can let his State and local Chamber of Commerce know of his interest. He can let the State Superintendent of Public Instruction know of his willingness to help in planning efforts. He can contact the school board in his local community and offer his help in planning Career Education programs."

In conclusion then, vocational education is an essential part of the developing concept of Career Education. And let me emphasize that adult education and manpower development and training and retraining both inside and outside the formal education system and training in industry is also a very important part of Career Education. If Career Education is going to be successful we have to involve all segments of our society. And I believe that we now have such a demonstration of interest around the nation among all segments of society toward Career Education that it will be successful, that it will transform American education and make it more meaningful and more rewarding to all the young people and adults in America today. Thank you very much.

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Let me first say that as summarizer I may be as much an evaluator and critic; and while my purpose is to synthesize, above all I hope to provide a framework and perspective on these two very full days of presentations and proceedings.

First, I want to summarize and comment on what I have actually seen and heard: the content, the ideas, the themes. Second, it may help if I convey what I sensed and felt was the conference *process*, that is, the *way* in which the ideas and themes emerged and the interaction around them. Third, perhaps just as important as what did take place is what in my judgment did *not*—some things that didn't happen and perhaps should have: this may help you in getting closure. Fourth, and finally, I should like to suggest some implications of this symposium for future action.

I can only laud the range and scope of the speakers who provided a balance between specialists and generalists, scholars and doers, new and traditional. They certainly addressed the key issues and themes of work and career and occupation and education that we gathered to consider. I agree with so much of what was said that some of my comments involve rather minor exceptions. However, I think there were certain significant recurrent themes and these merit underscoring at the same time that we analyze and evaluate them.

1. *One persistent theme involved the prediction and control of the occupational structure;* and with this was the correlated theme of training and shaping the work force to match that structure. This is certainly a major concern of an advisory council and in the public interest; but I would be more enthusiastic if I thought we had the wherewithal to back up our intentions and hopes.

Frankly, I have considerable doubt about occupational prediction except in gross form, especially when it comes to pinpointing specific occupations, as against job families. The debris of forecasting is strewn all over the labor market and I doubt whether it is possible or necessary to depend on forecasting in order to develop *most* of the programs and curricula in occupational and career education. Many economists are relinquishing the classic concepts of business cycles. They often see government cycles as significantly greater determinants of employment and unemployment. Furthermore, in a highly mobile society (one-fifth of all Americans change addresses every year) it is questionable whether we can truly match local and short term labor and training circumstances to large scale national occupational outlooks. Although one of our participants volunteered this morning to share his own business plans, by and large, business leaders are reluctant, frequently secretive about their hiring plans, sufficiently so as to limit the reliability of many local and state

studies. Medvin (in Kotz's "Occupational Education: Planning and Programming) has dealt most candidly with this issue. The B.L.S. occupational outlook studies themselves caution against literal applications, but most people don't read the small print.

My concern, however, is not with the technical problems of forecasting, but with the assumption that we can or should make rational educational and training plans based on the use of occupational data. Is an occupational education program which requires three years to staff and equip for a ten-year period to be scrapped because of two-year cyclical movements? Do not the vast majority of secondary level as well as adult training programs actually concentrate on a half dozen key occupational fields which constantly need new workers or replacements? And is it not also true that the ambitions and desires of young Americans are more powerful determinants than the rational, objective facts about where the jobs really are? My concern is that manpower predictions cannot easily be matched on a one-to-one basis in human resources development.

2. *Somewhat related is the recurrent statement about the rapidly changing job market.* The avid search for "new and emerging" occupations is in most respects the pursuit of a mirage. Most jobs continue to be quite stable and the number of futurists who see new occupations may well exceed the actual numbers in the new occupations. Certainly we must be responsive and innovative in respect to new industries and new occupations. Certainly there are now considerable numbers of employees in computer work, but business education programs, for example, are largely stable and effective as they produce traditional competent office workers. It is much more feasible for private industry to make the rapid adjustments internally and then appropriately to retrain its personnel. The myth of rapid occupational change is a difficult one to dispel, but it is much more important to concentrate on competency in standard occupations than to get caught up in the dubious glamour of the futurists.

3. *Then there is the notion that vocational education and job training can indeed have major impact on the problems of unemployment.* Before I register my doubts and concerns here, let me allay your doubts and concerns about my basic position. I am strongly in favor of career-oriented education in secondary schools, for adults, for the disadvantaged, and for the gifted, for that matter. I am against panaceas and slogans; and in a time of bewildering social and political changes, I question solutions to problems of work and welfare which make education and training the chief agents. In this regard I join with Ivar Berg (Education and Jobs: The Great Training Robbery) in questioning whether increased training is a prerequisite for most jobs or even for job advancement. In my own study several years ago (with Harry Wolfson, 1000 Employers Look at Occupational Education) we found, as did Ivar Berg in another context, that employers typically overstated their personnel requirements and that credentials supersede competence in hiring. The key to many of the disjunctions between unemployment and job openings may actually lie in credentials rather than "training." I am fully in favor of Dr. Worthington's and Commissioner Marland's position that every graduate should have a salable skill, but it should help to remember that employers and personnel officers may be just as irrational as

students in their determination of what the appropriate skill is for a particular job.

4. *The concern with the changing work ethic was frequently voiced,* although it may not have been as explicitly stated by the speakers as by some participants on the floor. What is so widely deplored is lack of responsibility, unwillingness to do a "day's work" and to accept "the dignity of all work," the excessive demands of young people, their lack of patience, etc. Invoking the Protestant Ethic (or for that matter the Catholic Ethic or the Jewish Ethic) certainly promotes vital discussion of fundamental issues, but it should be clear by now that the serious and agonizing changes in work attitudes and job behavior require new conceptualizations. The fact is that the white collar fallacy and other symptoms of affluent technological advanced societies are not confined to America—these are world-wide, international problems. Even in Japan problems of work motivation have been rapidly increasing and consumer psychology has been replacing their much-vaunted producer psychology. Unless we deal with the deep effects of abundance and affluence as well as with that most salient fact of manpower reality, namely, that the major thrust is to keep young people out of the work force as long as possible and then to get older people out of the work force as soon as possible—unless we analyze this in depth, slogans about old-fashioned virtues are not going to help very much.

5. *Another dominant theme in this conference, the final one that I have selected to deal with, is that of the image of vocational education.* Despite the evidence that image-makers can be powerful and that the media can change behavior as well as attitudes, I am frankly skeptical about the effectiveness of publicity in developing a positive image of vocational education. It may be that new labels will sell the product, and that telling the "real" story about vocational education or career education will result in that democratic ideal, an informed public. It is then hoped that an informed public will make wise decisions, but again I am being frank when I say that I doubt whether objective facts and data are as powerful as snobbishness, social ambition, and other determinants, some of which negate good sense. I should point out that there are probably many people even in this group, not to mention other leaders in this state, who have mixed, if not negative attitudes towards vocational education and that it is the opinion-formers, not image-makers, that influence the people. There are, for example, numerous superintendents and principals who should know better, but who continue to downgrade occupational education. Under the circumstances I would rather concentrate on the power and influence of decision-makers than on labels and images in the popular media. To summarize, we should have no illusions that serious crises in the American value system can be solved through glamourized media presentations.

Obviously, I have been selective in singling out certain themes for comment, but I do believe that these are central issues in vocational education and have treated them as such. My observations on the conference process also reflect certain biases. To start with, although it is probably a necessary ritual at public convocations, I'm afraid that the ratio of self-congratulation to debate and frontal assault was regrettably high. Despite the Governor's charge that the highest priority of this symposium should be suggestions for *change* and action, I found sur-

prisingly little debate. In fact, I felt a sense of complacency. Although I know that the vocational education programs in Illinois are amongst the best in the country, I hardly think that there is any state that can be complacent about our crises in education, youth, race and employment —in short, the crises that all converge in vocational education.

Lest you think that I underestimate the value of friendly, calm, considered and cooperative discussion as a basis for positive action, let me assure you otherwise. I do know that many participants here are probably having a first encounter with the field of vocational education and a pleasant climate is certainly desirable. And since this was the first convocation of its kind, it may be that it is an excellent beginning rather than a policy or a decision-making event. In this sense, I am impelled to urge that its great value as a beginning should not be lost; and that it be resumed and continued in the near future.

One further comment about the composition of the group: many sectors of the public were represented, but I was pleased to see so large a group from organized labor, something which is frequently lacking in conferences on vocational education. By the same token, I was dismayed that so few participants were from the fields of general or academic education, a group which I consider to be crucial in bridging the communication chasm.

Thus far I have summarized the issues and commented on the process of this symposium. In doing so I have already alluded to some omissions, but you will forgive me if I pursue this focus for a moment because I have often found this approach to be helpful when participants probe an experience more deeply. I offer these comments as constructive criticism, hoping that future conference planners may find some suggestions useful. First, I think that this kind of symposium requires a data base, facts and statistics on the nature, scope and size of the vocational education enterprise. How else is the general public to know what the actual enrollment and expenditures are in what is officially labeled vocational education? For example, to many people vocational education conveys essentially blue collar manual training; yet more than half of its total enrollment is in home economics and business subjects, including general typing. It would also be helpful, I think, to know how relatively small is the amount of money spent on vocational education and how it is distributed. In short, a factual basis for examining the rhetoric and the exhortations and the advocacies would be most helpful.

The second thing I missed was perspective on the rapid changes in the subjects of our conference—the learners, the children and adolescents. Only John Miles dealt with children and learning and growth as critical aspects of the overall problem. Basic facts about the unused and even startling capacities of young people should serve as another kind of base line for considering programs and issues in vocational education.

Let me now reiterate a point I made earlier in another context: in all our discussions of occupations and work very little was said about the problem of surplus people. In short, there is increasing evidence that the world of work is demanding greater competency and effectiveness at a much faster rate while the numbers of people who are not needed in the labor market also grow at a faster rate. The fact is that schools, colleges, and most other social institutions are more active in keeping people out of the labor force than in creating new jobs. Accordingly, the

contradictions and paradoxes that come from decreasing capacity of the economy to absorb people should be an explicit point of departure for any consideration of vocational or manpower training.

As I approach the conclusion of my summation I realize that I have already made recommendations to a greater extent than I had intended, or perhaps was even warranted. In these closing remarks, however, there remain several suggestions I am impelled to offer. First, is the notion that vocational education should not be forced into competition with general education. Even the best solution to date, career education, has already begun to challenge general education, and thus create the wrong kind of issue. There should be only *an educational system* with infinite patterns of individual programs. If parity is achieved—that is, where vocational and academic subjects are all equal—then the criterion will be what is a suitable pattern of experience and development for given individuals, not what is a "respectable" school subject. In a computer age the feasibility of individual programming is certainly there and the alternative is bored, untrained, unsalable dropouts or graduates. Since this is not the place for a full exposition of a unified but complex system, let me suggest that if vocational education becomes too separate from general education, it may well prove the point again that separate cannot be equal.

A second recommendation that I wish to reiterate is that those who are most concerned about education for the world of work must pay increasing attention to job creation. Otherwise, it may well be that except for jobs with continuous shortages such as nursing, secretarial, etc., we could have job training without jobs.

Third: perhaps the most important outcome of this symposium could be the stimulus to conduct local grass roots discussions and dialogues, community-based conferences on career development, work, employment, etc. The convocation of educators, parents, labor and industry should not be solely a blue ribbon affair, or a Governor's symposium, but rather a vital local event. The breakdown of communication barriers and negative images could be pursued most appropriately at the local level.

Finally, I congratulate the Advisory Council for their innovativeness in expanding the nature of their deliberations, and I congratulate you as participants in this pioneer effort. My criticisms have been directed toward improvement, but my overall feeling is most positive in that the conscious and deliberate bringing together of a wide range of leaders is a most important development in this field. To the extent that this has served as an orientation and as a beginning for many of you who may have limited background in career development and vocational education, to that extent I hope you will agree that coming together again during the coming year would be a most fitting outcome of this symposium. I thank the Advisory Council for inviting me and all of you for your courtesy.

INTERVIEWS

Moderator

I am speaking with Mr. Ray Mackey of the Illinois Federation of Teachers. Mr. Mackey, in your opinion what new ingredient is needed in vocational education to increase the success of the program?

Mr. Mackey

Quite likely the most necessary ingredient is a better preparation for the student at a more basic level in accord with the type of job into which the child will eventually move. This person should go into the labor market with a negotiable skill in accord with preparations for the future. Ten—twelve years ago we went math-science crazy because of Sputnik. Today there is an oversupply on the market of people very well trained and possibly over trained in that area. You have the same in teaching. We have a glut in the market for teachers and it's causing quite a bit of a problem. We have to look more into the future and discuss what our needs will be before we try to train students for jobs. Maybe those jobs won't exist ten years from now.

Moderator

Mr. Fletcher's main point this evening was that before government and industry can create a demand for jobs they must first train the workers to fill those jobs. Do you have any ideas about this situation?

Mr. Mackey

It must be jointly done. You plan for what you will need far enough in advance so that you know whether or not you will be able to fulfill those needs at the appropriate time.

Moderator

Mr. Fletcher also mentioned that certain guidelines should be enforced to ensure that federal funds are used properly to improve training of unskilled laborers. How do you think these guidelines should be enforced and by whom?

Mr. Mackey

The guidelines have to be set up by the people who know the most about the particular area. If you are going to talk about preparing construction workers or other union laborers you have to talk in terms of what is appropriate for the apprenticeship program. Who enforces the guidelines? You would like to think it could be an outside agency that could set definite but equal standards across the board for everybody involved in the same type program. But, it probably would have to be somebody within the particular program who could best determine whether or not the standards were being met.

Moderator

Mr. Fletcher also said there was an awareness gap existing between government and the problems present in creating manpower resources. Do you feel this gap does indeed exist?

Mr. Mackey

I would say so. Referring to the two examples I mentioned earlier—the space program and the teaching field—right now there exists a gap of what is needed.

Moderator

What would you recommend to alleviate this?

Mr. Mackey

It takes more statistical study and very sophisticated research to determine what the needs will be and how we can best approach meeting these needs.

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Moderator

I am speaking with Mr. Cliff Fields, Dean of Career Education at Malcolm X College. In your own opinion what new ingredient is needed in Vocational Education to increase the success of the program?

Mr. Fields

One of the basic things we need to do is to look at the individual programs in terms of clustering of occupations. We must train for alternatives in terms of more than one career and at the same time lead the person toward one specific career.

Moderator

What changes would you implement to get this desired result?

Mr. Fields

The curriculum must be designed so that the major general education component would be the same. As an example, we could give a core or basic curriculum for mechanics, welders, or engineers in terms of the general educational component. By having the basic component the same, then only 20% of the course would be designed to give the person training in his major area. Then if that occupation dies out he would only have to come back and pick up 20% of another component in an alternative area.

Moderator

How would you judge the overall effect of symposiums such as this one as a tool with which to improve vocational education?

Mr. Fields

The symposium will be effective if what is heard is implemented. We can view all speakers saying the same thing. They only have different approaches. In terms of identification of occupations five years from

now and the identification of the occupational needs of each industry and of these being filled, I think that all symposiums or meetings have little effect if there's not an assigned implementation component. Who is going to effect the things we have been hearing here today if there is no one assigned that task or hired to implement the things said? This symposium and our other meetings are exercises of futility unless this happens.

Moderator

Mr. Filiatreau noted that vocational programs are often dumping grounds for youths who feel unsuitable for college and that the programs are aimed at the nation's declining industries. Do you agree and if so, what would you suggest to improve the situation?

Mr. Fields

Many occupations are designed for a declining industry. First, we need to change the method of approval of programs. I think that if the community needs a program and industry has indicated a need it is quite possible that approval for this program would be stopped at the State level. The State would not know the particular need of that industry or community. I think that State governing bodies must not determine whether a program is approved or not.

Moderator

Do you agree that vocational programs are often dumping grounds for youth who feel unsuitable for college?

Mr. Fields

The connotation is true. Every parent that has a child that is shifted to vocational education has this negative built in. To eliminate this negative, I feel that the vocational component should be a basic part of the general education component starting from kindergarten and all the way through school. The student should not have to go to a different unit or be placed in a different area. That dumping ground syndrome is significant especially in the minority community where the skills of an occupation are not looked upon favorably. By causing all students to familiarize themselves with the vocational area, this stigma could be removed. We should require each student to have some hands-on technical or vocational experiences.

Moderator

Mr. Schuett brought up the possibility of vocational experience in industry as a means to tie industry and training programs together. Do you agree with this stand? If you do, how would you start such a program?

Mr. Fields

Vocational experience is essential to occupational identification and the interest of the student at an early age. There are two ways this probably could be done. One is a hands-on experience within the school with enough equipment in the school. I do not believe that a program such as this functions without a cooperative education component, In

other words, move the student out of the school into industry for the actual work experience. The company must accept the student as a co-op person. I do not believe in the traditional situation where the student goes to work and someone sits him over in the corner and we have cooperative education. Now I believe the student should be exposed to corporate thinking. In other words, profit oriented and work oriented. He must have a job and the job must produce money. If that is not the kind of cooperative education program you have, then I say it would be a very ineffective program. The end product must be profitable to the corporation. Distributive education and cooperative education as it is now practiced in the high schools, I think, costs the companies money. This trend must be reversed.

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Moderator

I am speaking with Miss Bonnie Gladden of the State of Illinois Vocational Rehabilitation. What new ingredient in vocational education, or in your case in rehabilitation, do you feel is needed to increase the success of the program?

Miss Gladden

There needs to be more coordination between the regular vocational programs and the vocational programs for the handicapped. In Illinois, we have operated programs for the handicapped pretty much in isolation. There is still a reluctance to accept a physically or mentally handicapped individual into the regular programs. I would like to see more involvement of vocational education with special education especially in the secondary schools.

Moderator

How would you go about improving that situation and getting more involvement between these schools?

Miss Gladden

Involvement must come at the local level. Many times as representatives of a state office, we go into a school system to meet with special ed people on vocational programs. They have never talked to a vocational director in that same high school. We are now attempting to get these special ed people to ask the vocational people to join in with them on the planning. Everyone seems to be afraid to open their area of specialty to another area of similar specialty.

Moderator

In your opinion, how would you judge the over-all effect of symposiums like this one as a tool with which to improve the extent of vocational rehabilitation?

Miss Gladden

As a representative of vocational rehabilitation, I attend many symposiums and discussion groups. I feel they are really beneficial. Many times as our speaker, Mr. Schuett, said, the wrong people attend these types of sessions. My own opinion is that we need more local and

regional programs of this nature so that people can readily attend and participate.

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Moderator

I am speaking with Mr. Howard Bede, Consultant, Winnetka Public Schools. Mr. Bede, in your opinion, is vocational education at the point you expected it should be at this time?

Mr. Bede

Vocational education is actually entering a new area with a new concept—Career Education—and in my opinion a much more effective phase. I started in this operation when I retired from an advertising agency eleven years ago. I had already started as a volunteer in schools under a program initiated by Dr. Sidney Marland who is today the Commissioner of Education in Washington. It was his idea to bring supplementary skills and experience of older people into the schools to help motivate what he termed "academic under-achievers." These people were capable students but not performing up to full capabilities. It proved to be successful and soon branched out to include all the schools in the system. Neighboring communities became interested and adopted similar programs. The requests from teachers became numerous as they were acquainted with the operation. We found it necessary to set up business-like recruiting agencies who would find in the community, human resources appropriate to meet the specific needs presented. We never send volunteers into the school just to volunteer. They go in there for two reasons. One, to supplement the teacher's activity and secondly, to extend the curriculum. They were bringing the outside world into the classroom at that early date in 1959. Our operation subsequently helped twenty-one communities around Chicago to set up similar programs that are still operating. Now we have high school and college students doing as excellent work and providing a wonderful association for both the older people and the younger people. As the new concept of career education comes, it helps break that spell that has prevented the children from learning about the world into which they will be projected when they finish their education. Think of the tremendous technological, economic and business developments that have taken place in the last fifteen years. Even adults don't understand them. They are so complicated, so massive. We have youngsters completely unacquainted with what composes that work-world. What are the good points about it? What's wrong about it? What opportunities does it hold for them? How do they prepare themselves for it? These kinds of questions are not being answered. They come out of school and unless they are following a professional course, they're at a loss. In my opinion this must account for much of the dissatisfaction and the unrest evident among youngsters today, and I have tremendous sympathy for them. My business experience and my personal desire supplementing that, give me the tools to enliven curriculum activities and discussions. These begin to give the children an awareness from a person who has had experience, and is relevant to their thinking and they are willing to accept that. Career education is trying to develop a comprehensive program, not fragmentary things.

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Moderator

I am speaking with Mr. Clifton Woods of the State Community College of East St. Louis, Illinois. In your opinion, what new ingredient is needed in vocational education to increase the success of the program?

Mr. Woods

What seems to pervade the entire educational field is the introduction of more kinds of activities whereby students actually have practical kinds of experience. The speaker this morning was talking about experience schools rather than vocational schools. I think this would be vocational laboratory schools. There should be more emphasis on cooperative kinds of programs, more real job experiences. This is one of the things missing. This could be done either through our audio-visuals, or else actually by experience in the industrial locale.

Moderator

What changes would you like to see made in a program of this type to improve the vocational education program?

Mr. Woods

We do not need the stilted form of the classroom that we have continued to use and is used in the academically based areas. There needs to be more and greater involvement of the individuals in the business and industry field and the educational structure. It would involve the entire restructuring of what we now think of as course structure such as weeks of classroom work and various written tests and checking the students' performance. There may be a need to get other kinds of performance evaluations.

Moderator

How would you judge the over-all effect of symposiums like this as one tool with which to improve vocational education?

Mr. Woods

My criticism is that we are still using the lecture-student technique that we have almost abandoned in education. There has not been much use of audio-visual materials. In some instances, these kinds of things could be employed. It's the usual standard kind of conference. Many of us probably are more knowledgeable about some of the subjects than the speakers happen to be. But, in other instances they give us new kinds of concerns, and I think this is what the exchange is all about.

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Moderator

I am talking with Mr. Blasch, from the IBM Corporation. What attracted you to the Symposium?

Mr. Blasch

I deal with education throughout Illinois at all levels as my job. I believe in training people at all levels to fit all job opportunities and my interest is not just in computers but in education at all levels. Of course,

I am interested in how a computer can be used to help a person do a better job or to help him learn more. This is what attracted me. I disagree with one statement in the opening of the conference. It says it is a "Governor's Symposium of Vocational Education." I was hoping that they would use what I believe to be better terminology and that is "Career Education" because everybody that has a job is a vocationalist. I think that if we take away the blue collar connotation of vocational education and call it career education we would get a better job done.

Moderator

Do you foresee any new types of computer training brought into the present vocational programs?

Mr. Blasch

There's a lot being done right now. In the speech delivered for the Governor they mentioned a Computorized Vocational Information System, which has been running at Willowbrook High School. It was developed there at Villa Park, Illinois. This program allows the student to look at vocations and how his or her background fits into the long range planning for their future development whether it be a brick layer, plumber, MD or professor. I feel this allows a student more exploration to find out about jobs, more than a counselor can tell. This is one area where we've used the computer to benefit the student and to take the administrative load off the counselor. This is something that's been developed in Illinois with good acceptance, not only nationally, but internationally.

Moderator

Are you familiar with any other programs such as this in other states?

Mr. Blasch

Several efforts in this area for vocational guidance and for guidance and counseling aids were started about five or six years ago throughout the country by different groups. CVIS is the only one that is a practical entity today that schools can afford and see benefits from using.

Moderator

Getting back to tonight's activities, have you been able to get any information valuable to yourself and to IBM from what has been talked about tonight?

Mr. Blasch

I think that Mr. Fletcher gave a very stimulating speech. He raised some sand. That is needed because today we don't even think of forward planning or planning for future job opportunities. This has to be done. As you work with schools throughout the state as I do, you see people teaching curriculums that were out of date ten years ago. If nothing else comes out of this conference, we've got to look to the future and start planning for the jobs that are going to be available—not tomorrow or a year from now—but four, five or ten years from now. If we don't do this, vocational education, or as I prefer to call it career education, is going to fail.

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Moderator

Mr. H. Robert Hewlett, Program Officer for Vocational Education of the Office of Education in Chicago, what attracted you to this symposium?

Mr. Hewlett

I am impressed with the group of industry people that are here and with the lay people who are interested in vocational career education. I've seen the day in my past when you'd have a meeting such as this and possibly 15–20 people would show up. Here you have people from over the entire state of Illinois who are taking their time to come and to make contributions to vocational education. This is really encouraging.

Moderator

And what gains do you and your office hope to obtain from the Symposium?

Mr. Hewlett

For many years its been a job of selling vocational education to the people, the schools, and the communities. We feel that as more people become involved from industry, labor, and the communities, it will be easier for us to accomplish our goals of making career education available to all individuals in the local community. We need this type of education. We know we have not reached many of the people we should have been reaching. You know the traditional saying that vocational education has been considered the dumping grounds. We feel that it's not the dumping grounds but is for every individual because all people have to work to make a living and to be useful productive citizens in their communities.

Moderator

Let's look at the vocational education program as it exists today. Can you give us a few pluses and minuses? Where would you like to see the program go?

Mr. Hewlett

For years we have been doing a good job considering the amount of funds we had available. We've been reaching some individuals in many of the schools, but we have not reached many of those lower income, or the disadvantaged, or the handicapped people. Many of these people can be productive and useful citizens. With the 1968 Amendments to Vocational Education the door was opened to force educators to accept the program. One of the things I agree with very strongly is the concept of career education which Commissioner Marland is championing. This will give us the means of getting into the lower grades and of getting the guidance people and the administrators and other educators finally to realize that all individuals and their education must center around the world of work. Many people express the fear that career education will become a substitute for general education. It is not a substitution, it is an integrating with the regular program. Individuals still need to know how to read, write, and communicate, but it makes learning more meaningful if it is centered around what is to be their life career. It's going to take many people working jointly to achieve this goal.

Moderator

One thing that has caught my interest is that several people have expressed that they feel that under this new program vocational education will start earlier in childhood, probably at the elementary school level. What possible ways can vocational education be instituted into a grade school?

Mr. Hewlett

We would have to say that the teaching of a skill does not come at these lower grades. But certainly we need to indoctrinate young boys and girls to the idea of work. We need to go to the kindergarten age and start them in exploring career possibilities. We can make them aware of the world of work. In the past, young boys and girls have gone to school and when they get to the 11th or 12th grade, we suddenly tell them there is a program to prepare them for a life occupation. This is wrong. We need to start at the lower grades developing an awareness and an exploration. Then at the high school start with the specifics. The cluster concept is a wonderful idea, and they can narrow down at the 11th and 12th grades to begin selecting a career, go on to the post secondary and become a technician, or more skilled, or on to higher education. I see nothing that's impossible here. I think it's a great thing to let all boys and girls know of their parents work and that they are going to have to earn a living so that when they get to high school age they're not suddenly shocked to know they are going to have to go into the world of work—without being prepared. We have many young people today who go all through college and then suddenly realize they're cast out into the cruel world not prepared for anything. I think this new concept is very exciting. I certainly hope this comes through.

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Moderator

We are talking with Mr. Robert H. Creek, a Vice President of Union Oil Company of California whose home is in Palatine. What has attracted you to the Governor's Symposium?

Mr. Creek

The fact that I'm president of my local school board.

Moderator

What are you hoping to gain from the symposium?

Mr. Creek

A broader view of vocational education as the vocational educator sees it.

Moderator

A vocational education program today varies from school to school. Can you give us your ideas of the program, some things you would like to see changed or added as new ideas?

Mr. Creek

Let me comment first on some of what I heard. They're talking like a disaster lobby. I no way agree with that because we run a remarkably good high school system, where 60% of our students go on to college or junior colleges, and 40% go to work. We don't seem to have any problems with out product, finding good work. Part of this is due, I think, to the diversified occupations program that we run, both in my business and in the school board's business. If I am hearing these people rightly, there seems to be a rather large amount of talk about trades and crafts. Trades and crafts are primarily associated with construction and construction is a very small part of our work force. As the GNP increases, a larger and larger portion of that increase is in the service industry, in clerical and office work, and in that general area schools are doing a rather good job. We can and do hire young men and women in jobs in the computer area and the like. As a heavily industrial oriented company most of our jobs tend to be in those areas other than hiring pipe fitters.

Moderator

But you will still hear the cry from the people in the inner city. Do you feel the programs need some strengthening there?

Mr. Creek

I think the big problem with the inner city is the fact that the school system is so large that it's essentially unmanaged. I think the school system of a city like Chicago is rather like a dinosaur. It is so large that by the time it takes for a nervous signal to run from the tail to the brain and back again its so long that it can't be responsive to the community. My experience with a high school district of a thousand children, which will be 15,000 in another 5 years, at the rate we're growing, is that there's an efficiency level related to bigness up to a point in a school system. Once you get past that point you are on a deficiency curve very rapidly.

Moderator

Could you give us your ideas on what changes the Chicago School System needs to gear itself toward better vocational education?

Mr. Creek

It needs to be more responsive somehow to the community. Rather like the people in New York who are trying very hard to break their massive system into community type groups. For example, the city of Chicago spends more per student than my high school district spends. We're taxed at the highest rate in Illinois because we are essentially a "bedroom community" without any big industrial base and our voters are willing to pay that tax rate because they perceive that their children are getting the type of education that fits them for something—whether it be for college or whether it be for a diversified occupation. I suspect that if the school system in Chicago were broken down into responsive community groups, they would attract people to the Boards and to the managerial positions in the schools that could become responsive to the industrial sector, and business sector, and the people who provide the work.

Moderator

Do you feel the vocational education program needs to be geared more toward what is really the work world?

Mr. Creek

As an employer with about 1200 people, I would rather hire someone who was really soundly grounded in his own language, could do mathematical work accurately, and I don't mean advanced calculus necessarily, who is taught how to solve problems, who is taught how to articulate, and who has learned how to deal with people. If I can find somebody like that, I'll make a pipefitter out of him if I need to, but I don't want a pipefitter who can't articulate, can't measure the pipe, and can't communicate with his boss. If you can't communicate, sooner or later, you are going to be misunderstood with very unhappy results.

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Moderator

We are talking with Dr. Donald D. Brown an Associate Director of the Board of Higher Education. Can you give us your views of the vocational education programs and some things you would like to see changed or added as new ideas?

Dr. Brown

My concern has to do with the duplication of the vocational facilities and/or programs as they relate to the local school vocational district and the junior colleges. With the state of the art being what it is, and with the state situation financially and economically being what it is, we ought to make a very strenuous effort to integrate these programs so that a local school district and a junior college will work together in developing and supplying the needs of the youth of a particular area. If we don't do this, we'll be guilty of a tremendous waste of our resources and manpower. If we integrate, we'll be able to study the needs of the areas that are being served. We'll have the staff capabilities of looking into the needs of industry and of directing young people into areas where there will be jobs available. One of the men in the symposium, one of the questioners, spoke to the effect that in certain cases there were no jobs available but in certain other cases there were jobs but no people to do the jobs. This requires a tremendous integration effort and survey. It can't be done on a fragmented basis. As a matter of fact, we have senior institutions that are thinking of certain kinds of higher level vocational activities and instruction. Then we would have three groups working at this. We need first of all a tremendous effort to bring the total needs of an area into focus and then to integrate these efforts. We should not duplicate those efforts but make one concerted effort.

Moderator

In a previous interview a lady was talking about tying together vocational programs and college prep programs, but on the high school level. Do you see a need of this either on the high school level or on the junior college level?

Dr. Brown

Very definitely. One of the biggest difficulties is this separation. Certainly there is a need to integrate and bring young people to an exposure of the kinds of vocational jobs that are available and the kinds of training. I think that is a very definite need.

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Moderator

We are talking with Mr. Clifton H. Matts, from Parkland College in Champaign. What comment do you have about Mr. Fletcher's speech?

Mr. Matts

I agree with him that welfare will be tied in some way with work in the future. Subsistence is one of the major problems we have of getting the disadvantaged to start a training program. Why should we not tie in the welfare payment with the training for a meaningful wage until the person is trained adequately to receive a living wage?

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Moderator

I'm talking to the Rev. John Erwin, the Chaplain at the Cook County Jail. Why are you here at this Vocational Education Symposium? What do you hope to accomplish by being here?

Rev. Erwin

Well, I am a member of the Governor's Advisory Council on Vocational Education. It is our hope that we will stimulate educators, labor and business to bring vocational education in the proper perspective—that is it is a way of life and not a second-rate education.

Moderator

Being in and working at the Cook County Jail, how do you think the vocational program is there?

Rev. Erwin

I've been a chaplain for 18 years now at Cook County Jail. In 1967 I became aware that men could not read, could not communicate, had no skills, and did not even know what they would like to do in life if they could do anything. I started with a group of citizens and created an educational program in the jail which now has received quite a bit of national publicity. In this program, we attempt first to raise the man's basic educational skills to where he is trainable. Then when he can function, we take him into a shop area where he explores vocational possibilities to help him discover what he might really like to do in life. Secondly, we then start him on the pre-vocational side of that occupation. By then he is getting close to his release date—we only keep them up to a year. We then get him into a vocational school in the Chicago area or anywhere in Illinois. We have eight men now going to college who came out of this program.

Moderator

Your program has been somewhat effective.

Rev. Erwin

Yes. The repeat rate for Cook County Jail was 70% within 90 days. Now that our program has been operating full scale for two years only 19% of our trainees have returned to jail. At least in this program at this point we're on the right track. Of course, these figures will change as time goes on. We know this.

Moderator

Regarding your participation here at the Vocational Education Symposium, have you heard anything that you would like to see changed?

Rev. Erwin

I was interested in Mr. Fletcher's talk. I would like to see the level changed that kids start into vocational orientation in school. There certainly must be a better way to communicate the needs of the nation and the projected job needs to the population and to the kids so that they could begin to become creative in their own minds and very early make some basic decisions about what they would like to do in life. He gave example after example of appropriations from the federal government where there had been no planning in regard to human resources. The kids were not even made aware that these possibilities would exist in eight or ten years. We've kind of forgotten that we grow up, and ten years from now that things will be different. Sometimes there are projections that would indicate many possibilities but I don't believe that this is communicated to the grade school or high school student. This should definitely be changed.

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Moderator

I'm speaking to Dr. Edward Harris, Professor at Northern Illinois University. Dr. Harris, what was your particular reason for coming to the Vocational Education Symposium, and what do you hope to accomplish by being here?

Dr. Harris

I think the major reason most of the people are here is to develop a dialogue between business and industry and various segments of the community that are involved in this whole process of preparing youths for careers in the world of work.

Moderator

A question was raised that vocational programs are sometimes called the dumping grounds for youths who have been judged or have judged themselves as unsuitable for college. Do you view this as the typical belief that is now being expressed?

Dr. Harris

First of all, I don't know what we mean by dumping ground. I'm not sure that any student could ever be classified in such a category. Certain students have different aptitudes. Certain people have an aptitude for working with data, other people have an aptitude for working with things, other people have an aptitude for working with people. I think that to say we have dumped students, or that the vocational program is being used as a dumping ground for students, is a bad misnomer. If we in vocational education are capable of identifying the aptitudes of kids and we can serve their needs, then I think that we are making a real contribution to society. If people want to say that they've dumped them on us when we're actually serving youth, then I guess that's fine. I'm not going to get concerned about it because we have proven that we can identify kids' aptitudes, we can serve our youths needs, and we need to do more of this. I hope this will now come out of our "career education" concept—that we realize that we can and are doing the job.

Moderator

Do you feel that they should implement the vocational program in the lower levels of schools, where as in some high schools they are geared to the college prep program. Do you think they should also be geared to the vocational program and have interest expressed in that too?

Dr. Harris

You're alluding to the idea of when do you start preparing a young person for a career—the career concept being advocated by President Nixon through Commissioner Marland. You are probably aware that Illinois has felt this concept for a number of years. I don't know how much money that vocational education has put into this, but Southern Illinois University has an excellent program going on in this area as does Northern Illinois University and Eastern Illinois also. I think that Illinois developed this concept of career education—the hope for a continuum of career awareness beginning back before a student comes to school and continuing on through adult life.

This idea of career awareness, career expioration, career orientation, and preparing students actually for occupations we might call education for careers. The whole continuum is very important. If we don't do a good job of preparing teachers to work with these kids at this lower level, we're in for some serious problems. I'm very optimistic about the concept of career education. I think the delivery system is still fuzzy. We have to be extremely careful that we don't forget that we also need to prepare youth for careers.

Moderator

How effective do you feel this Vocational Educational Symposium is in promoting vocational education?

Dr. Harris

This isn't very fair to me as I just flew in this morning from Los Angeles. It has given vocational education some visibility, and this is

what we need. The State Advisory Council should be commended for tackling this type of an activity.

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Moderator

I'm talking to Mrs. Bea Forrest who is affiliated with the Women's American ORT. What is that organization?

Mrs. Forrest

ORT stands for the Organization for Rehabilitation through Training. We're a national women's organization, affiliated with an international group that addresses itself to the vocational needs of disadvantaged Jewish teenagers and adults in about twenty countries of the world. Our concern now in America is trying to help our local communities reshape attitudes about vocational education.

Moderator

What do you feel is the current attitude toward vocational education? One of the speakers mentioned that he felt that it was used as a dumping ground for youths who have been judged unsuitable for college. How do you feel toward this?

Mrs. Forrest

This has been the problem. We probably have imposed this upon ourselves with the great push we have experienced in this country for college status for every kid—the snob appeal that it holds, and the kind of jobs that you are able to get upon completion of a college graduation. With the changing lifestyles in our country which our young people have brought upon us, we're also seeing changes in education, and we should be. We feel very strongly that sound programs of vocational education can make a young man or woman lead a very productive, sensitive life, put them in the economic mainstream, and make them feel equally as important as the college kids.

I think it's the statistics which are throwing us. We have always felt that our country didn't really need this kind of training. It is the greatest, the biggest, the most affluent country in the world, and yet the statistics are alarming. Only 20% of the kids who start a four year college degree program graduate. At the high school level, it's increasingly alarming. About a year ago, the percentage was that 23% dropped out of high school before four years. Recently it has risen to almost 30% of the kids in high school who do not graduate. Of the percentage that do graduate, 25% don't go on to college. They graduate with absolutely no marketable skill. Now where are these kids? One out of every four white kids between 16–19 years is unemployed and has dropped out of school. The ratio for blacks is one out of three. Now where are these kids? Is the educational system failing? Are the youth of tomorrow the leaders of tomorrow? This is what we're concerned about.

We're living in a technological society. The schools are using the fruits of technology—teaching machines, audio-visual aids—yet they're not teaching the technology itself. They're just using the technology. As housewives we experience it in our homes. Kids experience it with toys.

There is technology all around us and yet, we are not teaching our kids either to cope with it or to use it intelligently.

How do you feel about vocational education? Why shouldn't the kid who wants only to go to high school and not go on; or the kid who wants to graduate from high school and go to a junior college—why should he not have equal status with the kid who goes to the four-year college? We were putting every kid in America into one mold—the college route. There should be alternate routes. We should pursue excellence not only for our colleges and universities but for our vocational and technical schools as well. Each person in the society has merit. It is not his position which gives it to him but the experience of work and what he does and the contribution he's making to society that's important. It doesn't matter whether he's a plumber, a technician, an engineer, or a thinker. In a democracy, we have to recognize that there are individual differences. We have to recognize and respect this. This is why we are very anxious to help our communities reshape attitudes about vocational education.

Moderator

Do you think that this Symposium is effective in promoting vocational education? Would you like to see more of these held? Do you think that it has really helped the vocational education program?

Mrs. Forrest

More people must recognize that this is a problem of society—that attitudes have to be reshaped. You have to start to talk about it first to sort of spread the gospel. I think this is the way it happens. Education should be open-ended. Maybe every kid should be trained for some kind of a skill whether he uses it or not. Many of our youth who go to professional programs have to be working their way through school, so why shouldn't they be trained at least at the high school level to go out and get a job while they are working their way through college. Kids should be able to go from high school to a technical field in a junior college. If they so desire to go further with their education, there should be an easy step from the junior or community college to the university. We're not locking anybody into one particular kind of education. Kids should be given the experience of working with their hands as well as their minds. These Symposiums can be very helpful. If the mass media were to recognize them a little more and give more visibility to this kind of a program, we would find more people talking about vocational education. I think another locked-in idea is that kids really don't know where to go. In high school, the guidance counselor is telling you what college you can go to, but often times, the guidance counselor doesn't know anything about the programs of the technical schools in the area or the junior colleges in the area.

Kids are very bored with school today. They say it's not relevant and they aren't learning anything that really applies to society. The future of vocational and technical education is trying to synthesize the academic courses with the technical. You can't separate them anymore because the more technical the society becomes, the greater your knowledge has to be of mathematics, science, and everything else that is related to it. There has to be a greater sense of morality with our technology. Kids

feel that technology is destroying the society, but, yet, it is technology which can save it. So perhaps in our schools if we can teach a sense of morality with the technology—combine humanism with technology, I think we'll really have something. I think this would be the ultimate goal.

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Moderator

I'm talking to Mr. Dennis Dazey, who is President of an organization called the FFA. Mr. Dazey, could you give us some information, just what is that organization?

Mr. Dazey

The Future Farmers of America is a youth organization of about 16,000 young men and women in Illinois that are concerned about the development of the individual in the agriculture area. We try to develop competent and aggressive rural agricultural leadership, cooperation, and citizenship through vocational agriculture classes in our local high schools. Hopefully, we develop the individual so that he can stand up in society and voice his opinions and be respected and know how to make good and mature decisions in his life.

Moderator

In the speech given by Mr. Fletcher, he emphasized the vocational aspects in the urban area. You were mentioning the rural area of vocational education. That's agri-business. Could you relate some of that?

Mr. Dazey

Well, yes sir. Mr. Fletcher was basically more concerned about the rural-urban shift. He felt that there was no future in rural America—that we shouldn't be concerned. The only place that we should be concerned is in the urban centers. Considering that farming has become such a complete business and a business where the risks are great, and you get such a low return for the capital that you have invested, he questioned whether this field was open to youth. Farming is very much a high management position. Too many people think that farming (or production agriculture) is what you do if you can't do anything else, but that's not the truth. Though you are a production agriculturist, you have to be a trained economist, a trained nutritionist, a trained agronomist in order to make your farming operation work. We must also recognize the fact that agriculture is becoming an important sector of our economy. For every agriculture production man that we have, there are 14–15 agri-business people behind him. By agri-business people, I'm talking about those we label as feed and fertilizer salesmen, machinery salesmen, repairmen, mechanics, market people, and other kinds of business individuals. At the Symposium, especially on vocational education, we seem to be slighting the issue of rural education. In fact it was said that we need no further rural education at all. We just move into the urban centers and educate all the people there and all our problems will be solved. My personal opinion is that we need to go back to the rural area and make sure that we're giving these people the proper train-

ing so that they can make the right decisions so they aren't misusing the capital they have, or misusing the opportunities of the new technology they have. Vocational education is very much needed in the rural area, especially through vocational agriculture courses.

Moderator

How would you try to stimulate vocational education in the rural areas? How would it be most effective?

Mr. Dazey

President Nixon has come out with his idea of rural development. He thinks we should develop rural America. In the FFA we also believe that very much. We try to develop rural America by taking a survey of the community and finding out what is wrong with it. Then we go to the city council and get the people behind us and organize the whole community and get them going. One thing that is needed before we can actually get effective vocational education classes back in rural America is to make the people understand that there is an importance in agriculture. It's amazing to me, being a production agriculturist myself, that you can go into any small town, you don't have to come to Chicago, and start talking about the complex business ideas you have to work with in farming and these people become totally lost. They see that big $12–$14,000 tractor-combine out there and think that the farmers are sitting on top of the totem pole—that they've got money running out their ears. They never get to look at the other side and see all the debits that these farmers have.

First of all we need to go through a massive education of the public to show them that agriculture is not as glorious as it seems to be. Once that is done then they will start seeing that agriculture is important and that they can move in. Then community support will come to the vocational agriculture program. School board people and community leaders feel there's no future in agriculture so they're putting the pressure on the vocational-agriculture programs. We need to educate these people and show them the importance of agriculture and hopefully get them to support vocational-agriculture and rural development. I don't mean to be slighting the urban areas. I'm very much for vocational education in urban areas too.

Moderator

In your opinion, how effective would you say this Vocational Symposium is in bringing out some of these things that are left uncovered?

Mr. Dazey

We need more interaction among people. Mr. Fletcher was a very interesting speaker, but we really didn't explore all the avenues that we could have. Time is limited. It seems as though many of the people here —not all of us—are not motivated enough really to get involved. How am I to impose my ideas on people that have been educated, that have been working in these areas and know so much. So, I sit back, and feel sorry about that now. I don't think there has been enough interaction, among the people by asking questions of the speakers and the speakers really giving their opinions. Too often they get wrapped up in this

"gobbledegook" and everybody says "that's okay." We need more interaction, more questions and answers rather than long dissertations.